ORDER NO. EMID881229
A4

Service Manual

PCM Digital Piano

SX-PR100/PR200

(M), (MC), (EN), (EI), (EH), (EB), (EF), (EZ), (EW),
(EP), (EK), (XT), (XL), (XR), (XS), (XD), (X)

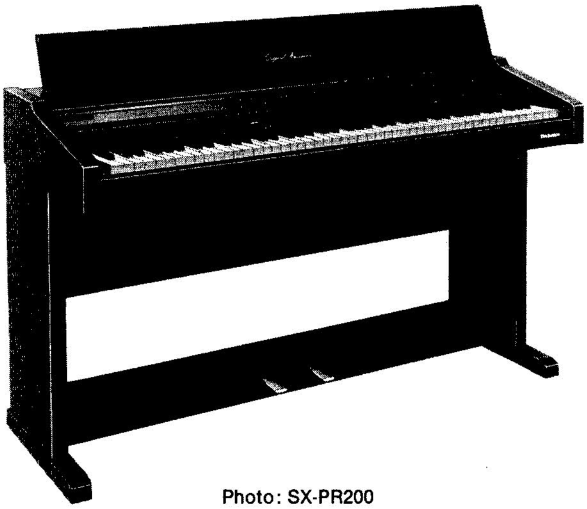
Photo: SX-PR200

AREAS

(M): U.S.A.
(MC): Canada
(EN): Norway, Sweden, Denmark, Finland
(EI): Italy
(EH): Holland
(EB): Belgium
(EF): France, Austria
(EZ): Germany
(EW): Switzerland
(EP): Spain
(EK): the United Kingdom
(XT): Taiwan
(XL): New Zealand
(XR): Australia
(XS): Malaysia, Singapore, South Africa
(XD): Saudi Arabia
(X): the Middle East, Indonessia, Hong Kong, the Philippines, Thailand

Specifications

	SX-PR100	SX-PR200
KEYBOARD	76 KEYS (16 NOTES POLYPHONIC)	88 KEYS (16 NOTES POLYPHONIC)
KEY SPLIT	○ (G2, C3, C4)	
FULLBAND SETTING COMPUTER	FSC, RECORD*	
PLAY SEQUENCER	BASS, ACCOMP, LEFT, RIGHT, RECORD*	
RIGHT/ACCOMP TONE	PIANO 1, 2, E. PIANO 1, 2, HARPSICHORD, GUITAR, JAZZ GUITAR, HARP, VIBETONE, PIPE ORGAN, JAZZ ORGAN, STRING ENSEMBLE, BRASS, TRUMPET, TENOR SAX, CLARINET, FLUTE	
	OCTAVE SHIFT (−2, −1), SUSTAIN PEDAL, BALANCE (RIGHT, ACCOMP)	
LEFT/BASS TONE	PIANO 1, 2, E. PIANO, HARPSICHORD, CLAVI, GUITAR, JAZZ GUITAR, HARP, JAZZ ORGAN, STRING ENSEMBLE, BRASS, SYNTH PERC, ACOUSTIC BASS, ELECTRIC BASS, CHOPPER BASS, SYNTH BASS	
	OCTAVE SHIFT (+2, +1), SUSTAIN PEDAL BALANCE (LEFT, BASS)	
PEDAL SELECT	SOFT, SOSTENUTO, FILL IN & INTRO	
EFFECT	CHORUS	
TRANSPOSE	UP (+C#, +D, +D#, +E, +F, +F#) DOWN (−B, −A#, −A, −G#, −G)	
KEYBOARD PERCUSSION	35 KEYS	
RHYTHM (SELECTORS)	MARCH/COUNTRY, WALTZ, JAZZ WALTZ, SWING, CHA-CHA, RHUMBA, TANGO, SALSA, BOSSA NOVA, SHUFFLE, BALLAD, 8 BEAT, 16 BEAT, DISCO 1, 2, SWING ROCK, FUNK ROK, SAMBA	
(CONTROLES)	SYNCHRO START, START/STOP, BALANCE (DRUMS), TEMPO, BEAT INDICATORS	
FILL IN & INTRO	○	
ENDING	○	
METRONOME	○	
ONE TOUCH PLAY	○	
AUTO PLAY CHORD	ADVANCED, BASIC, BASS & ACCOMP 1, 2, 3, 4	
PROGRAM CHORD COMPUTER	PCC, RECORD*, CHORD COMPOSER (KEYBOARD) 𝄞–, ◄, ►, ⊢⌒⊣, ⊢⌒⊣, ⊢++⊣, 𝄋 𝄌, D.S., —𝄂, ⊂⊃, ⊣ ⊢	

Technics

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	SX-PR100	SX-PR200
MUSICAL DISPLAY	TEMPO, TRANSPOSE, PLAY SEQUENCER (PART, MODE NOTE, ERROR), MIDI (PART, BASIC CHANNEL)	
MODE SET	MIDI.....................NORMAL, SEQUENCER TO EXT, MANUAL TO EXT, BOTH TO EXT, SONG SELECT, MIDI CLOCK, START/STOP, PROGRAM CHANGE, LEFT OFF OTHERS..............MIN RANGE, PIANO TUNING, MEDLEY, FD (NORMAL 1, 2, PRO)	
TERMINALS	MIDI.....................IN, OUT, THRU AUX IN ....input level 500mV, 15KΩ L, R/R+L LINE OUT ....output level 1.5V, 600Ω L, R/R+L OTHERS..............DIGITAL DISK RECORDER CONNECTOR, PEDAL IN, PHONES, AC IN, MEMORY CARD SLOT	
OTHERS	POWER SW, MAIN VOLUME, TUNE, INITIAL KEY, PEDAL (SUSTAIN, SOFT)	
OUTPUT	20W × 2	25W × 2
SPEAKERS	16cm (6-5/16″) × 2, HORN TWEETER × 2	
POWER REQUIREMENT	100W AC 120/220/240V 50/60Hz, AC 120V 60Hz (NORTH AMERICA)	
DIMENSIONS (W × H × D)	121.3cm × 81.9cm × 53.5cm (47-3/4″ × 32-1/4″ × 21-1/16″)	137.8cm × 81.9cm × 53.5cm (54-1/4″ × 32-1/4″ × 21-1/16″)
NET WEIGHT	58Kg (127.9lbs.)	61Kg (134.5lbs.)
ACCESSORIES	STAND, AC CORD	

- *Common RECORD button is used for these buttons.
- Specifications are subject to change without notice for further improvement.

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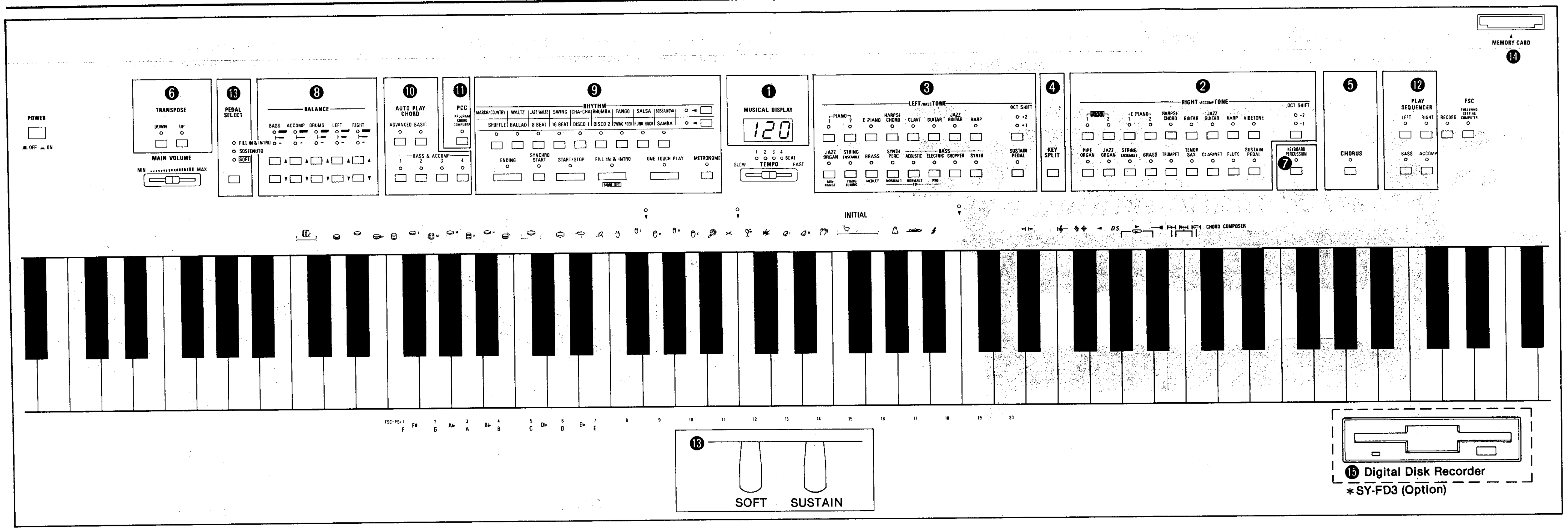
ARRANGEMENT OF CONTROL PANEL



POWER
OFF ON
❻ TRANSPOSE
DOWN UP
MAIN VOLUME
MIN MAX
⓭ PEDAL SELECT
FILL IN & INTRO
SOSTENUTO
SOFT
❽ BALANCE
BASS ACCOMP DRUMS LEFT RIGHT
❿ AUTO PLAY CHORD
ADVANCED BASIC
BASS & ACCOMP
1 2 3 4
⓫ PCC
❾ RHYTHM
MARCH/COUNTRY WALTZ JAZZ WALTZ SWING CHA-CHA RHUMBA TANGO SALSA BOSSA NOVA
SHUFFLE BALLAD 8 BEAT 16 BEAT DISCO 1 DISCO 2 SWING ROCK FUNK ROCK SAMBA
ENDING SYNCHRO START START/STOP FILL IN & INTRO ONE TOUCH PLAY METRONOME
❶ MUSICAL DISPLAY
120
1 2 3 4 BEAT
SLOW TEMPO FAST
❸ LEFT/BASS TONE
PIANO 1 2 E PIANO HARPSI CHORD CLAVI GUITAR JAZZ GUITAR HARP
OCT SHIFT +2 +1
JAZZ ORGAN STRING ENSEMBLE BRASS SYNTH PERC ACOUSTIC ELECTRIC CHOPPER SYNTH
BASS
SUSTAIN PEDAL
❹ KEY SPLIT
❷ RIGHT/ACCOMP TONE
PIANO 1 2 E PIANO 1 2 HARPSI CHORD GUITAR JAZZ GUITAR HARP VIBETONE
OCT SHIFT -2 -1
PIPE ORGAN JAZZ ORGAN STRING ENSEMBLE BRASS TRUMPET TENOR SAX CLARINET FLUTE SUSTAIN PEDAL
❼ KEYBOARD PERCUSSION
❺ CHORUS
⓬ PLAY SEQUENCER
LEFT RIGHT RECORD
BASS ACCOMP
FSC
MEMORY CARD
⓮
INITIAL
CHORD COMPOSER
⓭ SOFT SUSTAIN
⓯ Digital Disk Recorder
∗SY-FD3 (Option)

BASIC FUNCTION

❶ MUSICAL DISPLAY

Display shows tempo speed and remaining strage notes capacity which can be stored in the play sequencer.

❷ RIGHT/ACCOMP TONE

This section is used to set the voice and effects for the right part of a split keyboard. Choose from 17 voices on the PR100/PR200. Available effects are sustain, octave shift and chorus.

❸ LEFT/BASS TONE

Select a voice and effects for the left part of a split keyboard, or for the whole keyboard when the split function is not used. There are 16 voices for the PR100/PR200. The sustain and octave shift are available for the left keyboard also.

❹ Split function

The keyboard can be split into left and right parts for which different voices and effects can be assigned. The split location can be set at G2, C3 or C4.

❺ CHORUS

A **CHORUS** effect can be applied to give the sound greater depth.

❻ TRANSPOSE

Raise or lower the key of the entire piano with the **UP** and **DOWN** buttons. The transposed key is shown on the **MUSICAL DISPLAY**.

❼ KEYBOARD PERCUSSION

Turning this button on transforms your keyboard into a whole band of percussive instruments and special sounds. The keys are picture-coded for quick and easy selection.

❽ BALANCE

The volumes for the **RIGHT**, **LEFT**, **DRUMS**, **ACCOMP** and **BASS** parts are adjusted with their respective ▲ and ▼ buttons. No sound is produced if both indicators are off.

❾ RHYTHM

Select a preset rhythm from the 9 × 2 matrix and start it instantly with the **START/STOP** button. **BEAT** indicators, **SYNCHRO START**, **METRONOME**, **TEMPO** adjust and volume control (**DRUMS**) make playing easy. And regular Technics features such as automatic **FILL IN** & **INTRO**, **ENDING** pattern and **ONE TOUCH PLAY** add spice to your performance.

❿ AUTO PLAY CHORD

This feature is selected when the **ADVANCED** or **BASIC** button is turned on. The bass and accompaniment are automatically produced when you play a key on the left part of the keyboard. Four **BASS** & **ACCOMP** buttons provide a variety of rhythmic and melodic patterns matched to the selected rhythm.

⓫ PROGRAM CHORD COMPUTER

Store the chord accompaniment, rhythm sequences, fillins, etc. of an entire song in the piano, then have it played back automatically while you play the melody. With the keys at the right end of the keyboard, store whole, half-or quarter-measure chords, specify repeat play, and more.

⓬ PLAY SEQUENCER

With this feature you can separately play and store the right, left, accompaniment and bass parts for an entire tune. Then have the whole synchronized sequence played back automatically.

⓭ PEDALS

Control the sustain and quality of piano tones with the sustain pedal and soft pedal. Or you can choose to activate the automatic rhythm or fill-in with the soft pedal by using the **PEDAL SELECT** button.

■ SUSTAIN PEDAL

On the PR100/PR200, the sustain pedal is a four-stage pedal, and the length of the sustain is controlled by the degree to which the pedal is depressed.

■ SOFT PEDAL

The soft pedal can also be used as a **SOSTENUTO** pedal.

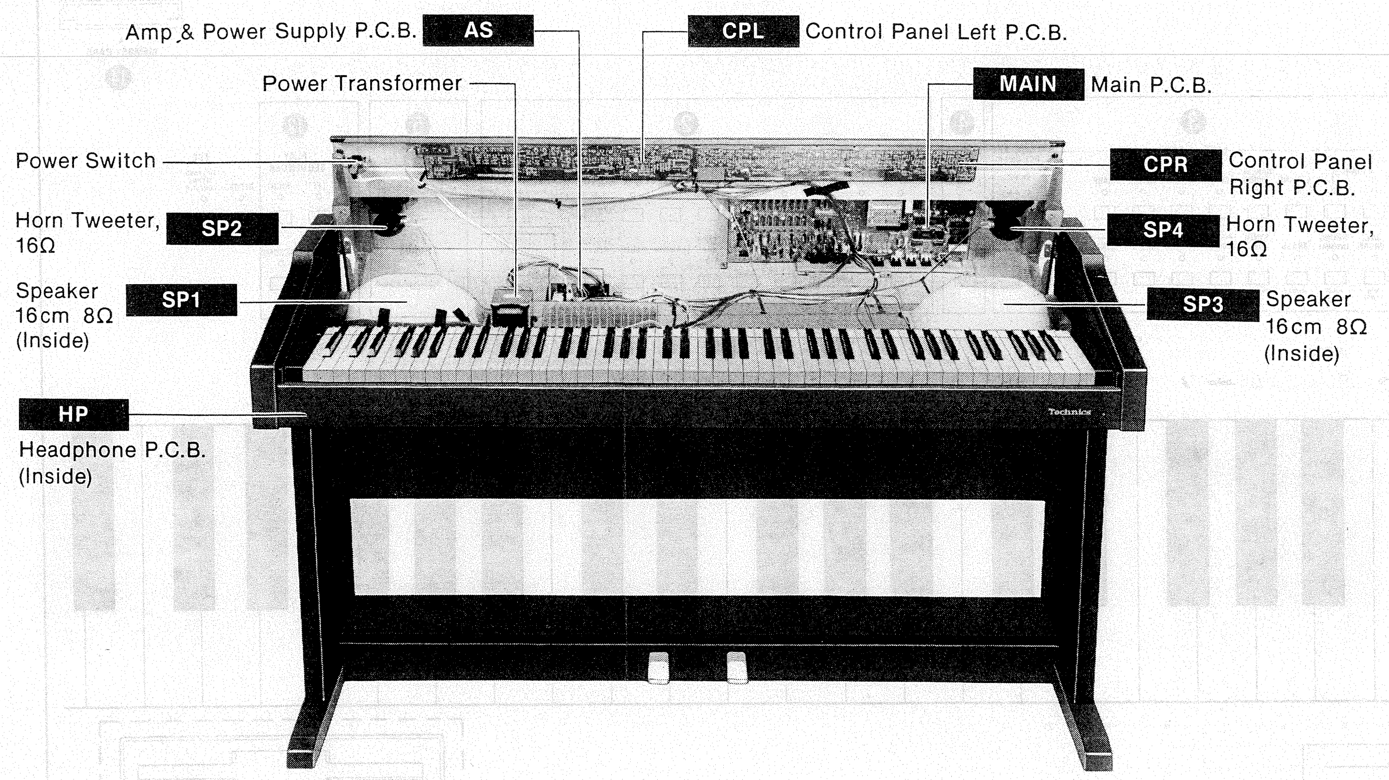
⓮ MEMORY CARD

Record your performances or just the registrations on optional memory cards. Recall and reset the piano registrations—or have a whole tune performed automatically—in just seconds!

⓯ DIGITAL DISK RECORDER SY-FD3 (option)

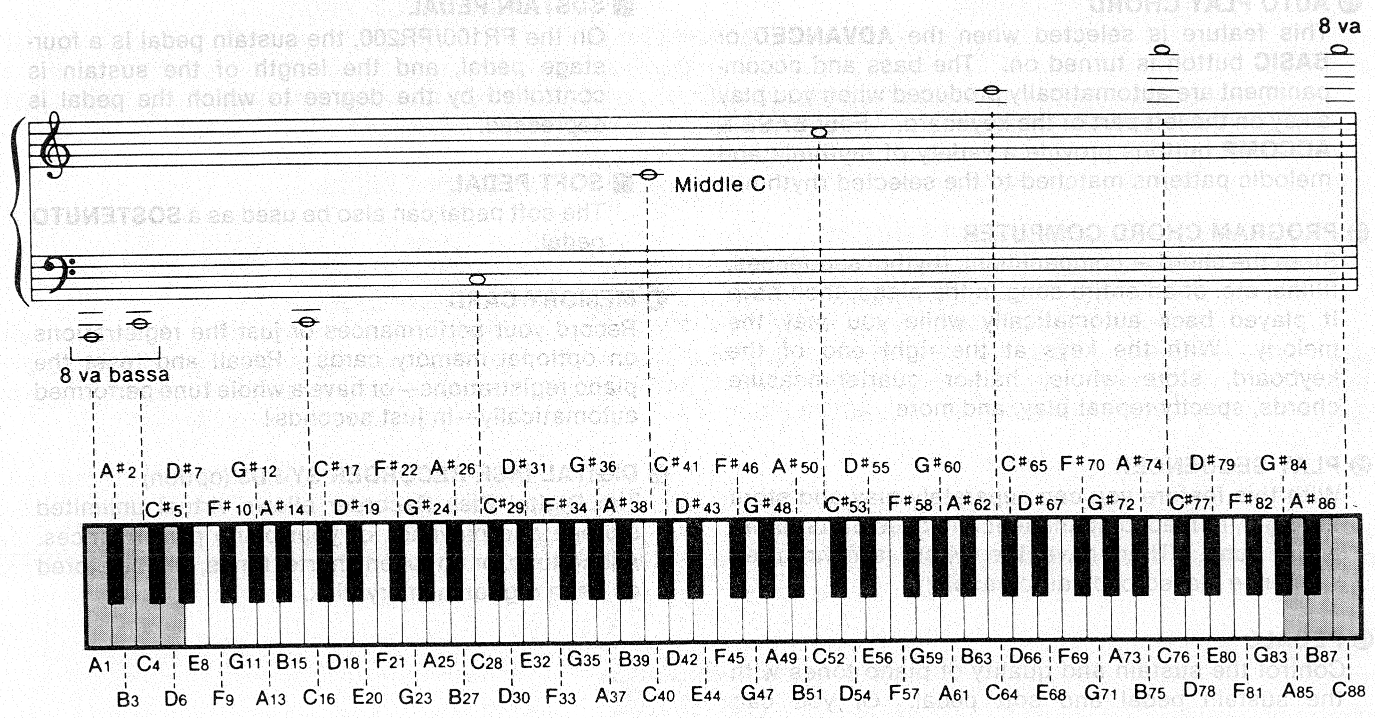
The Digital Disk Recorder allows virtual unlimited storage and playback of your piano performances. A long tune, or up to ten shorter tunes, can be stored on each digital memory disk.

PARTS LOCATION


Amp & Power Supply P.C.B.
AS
CPL
Control Panel Left P.C.B.
Power Transformer
MAIN
Main P.C.B.
Power Switch
CPR
Control Panel Right P.C.B.
Horn Tweeter, 16Ω
SP2
SP4
Horn Tweeter, 16Ω
Speaker 16cm 8Ω (Inside)
SP1
SP3
Speaker 16cm 8Ω (Inside)
HP
Headphone P.C.B. (Inside)
Technics

[Photo-1]

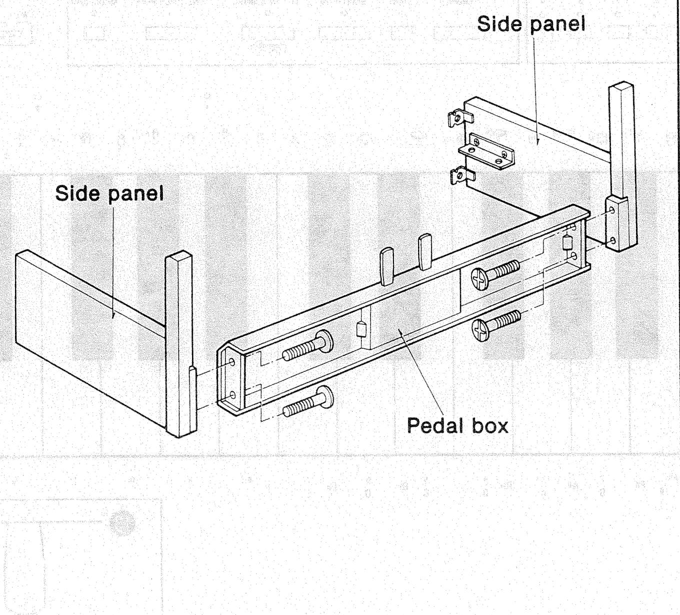
KEYBOARD RANGES


8 va
Middle C
8 va bassa
A#2
D#7
G#12
C#17
F#22
A#26
D#31
G#36
C#41
F#46
A#50
D#55
G#60
C#65
F#70
A#74
D#79
G#84
C#5
F#10
A#14
D#19
G#24
C#29
F#34
A#38
D#43
G#48
C#53
F#58
A#62
D#67
G#72
C#77
F#82
A#86
A1
C4
E8
G11
B15
D18
F21
A25
C28
E32
G35
B39
D42
F45
A49
C52
E56
G59
B63
D66
F69
A73
C76
E80
G83
B87
B3
D6
F9
A13
C16
E20
G23
B27
D30
F33
A37
C40
E44
G47
B51
D54
F57
A61
C64
E68
G71
B75
D78
F81
A85
C88

▨ is for PR200 only

HOW TO ASSEMBLE THE PIANO

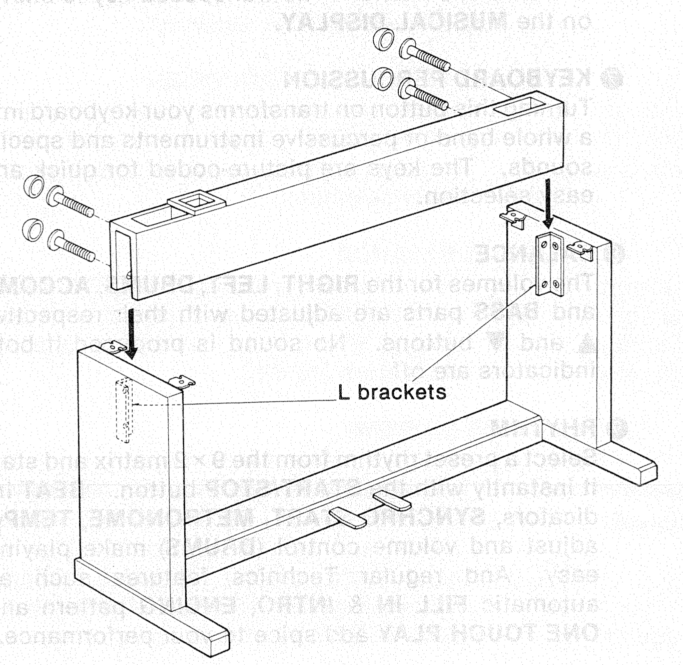
1 Attach the side panels to the pedal box using the for black bolts.


Side panel
Side panel
Pedal box

[Fig. 1]

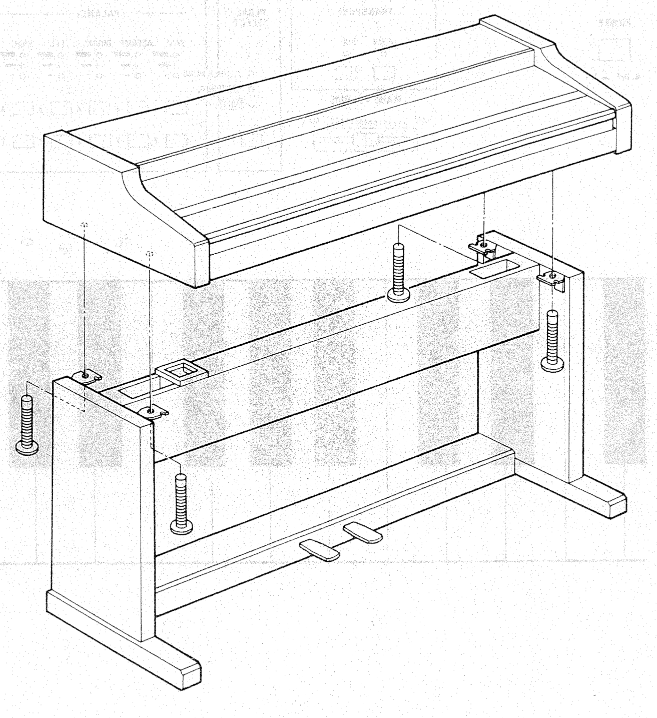
2 Place the stand upright, and fit the crossboard onto the L brackets from above.

Secure it with the four black bolts, and cover the bolt heads with the caps.



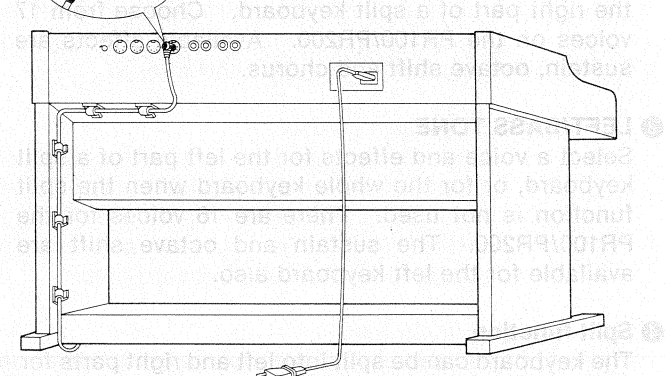
[Fig. 2]

3 Set the piano unit on the stand, and secure it to the stand with the four brown bolts.



[Fig. 3]

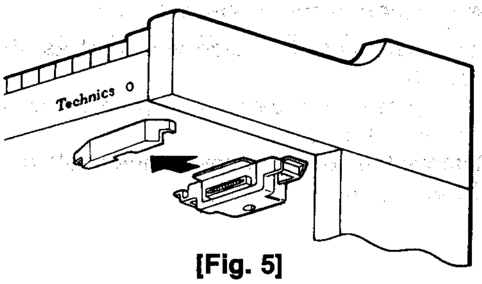
4 Attach the cord from the pedal box.



[Fig. 4]

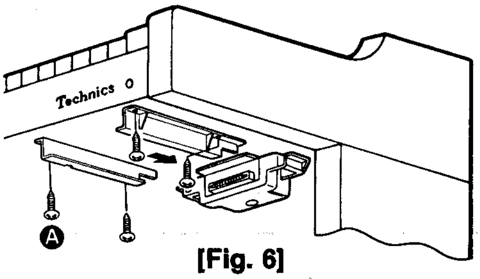
INSTALLATION OF SY-FD3 (OPTION)

1
- Make sure that the power to the Technics piano is turned off.
- Remove the cover from the connector unit.



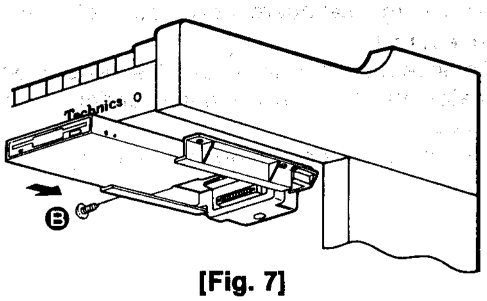
[Fig. 5]

2
- Completely insert the right and left guide rails into the grooves of the connector unit.
- Affix the guide rails to the underside of the piano with the four bolts Ⓐ.



[Fig. 6]

3 Insert the Digital Disk Recorder (SY-FD3) along the guide rails, and push it in firmly and completely.
- Secure the Digital Disk Recorder to the left guide rail with screw Ⓑ.



[Fig. 7]

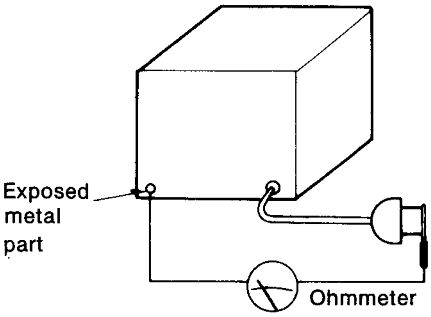
SAFETY PRECAUTION (This "safety precaution" is applied only in U.S.A.)

- **Safety Precaution**

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

- **Insulation Resistance Test**

1. Unpulg the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screw heads, connectors, control shafts, handle brackets, etc.. Mesurements should range from 4MΩ to infinity to all exposed parts.

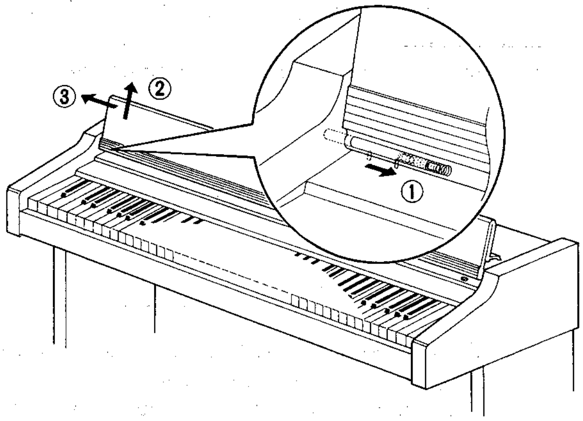


Resistance=4MΩ to ∞

DISASSEMBLY PROCEDURE

1 How to remove the keyboard cover

① Left shaft slide to inside with tool as shown Fig. 8-①.
② Lift upward left side of keyboard cover as shown as Fig. 8-②.
③ Remove the keyboard cover slide it leftword as shown Fig. 8-③.

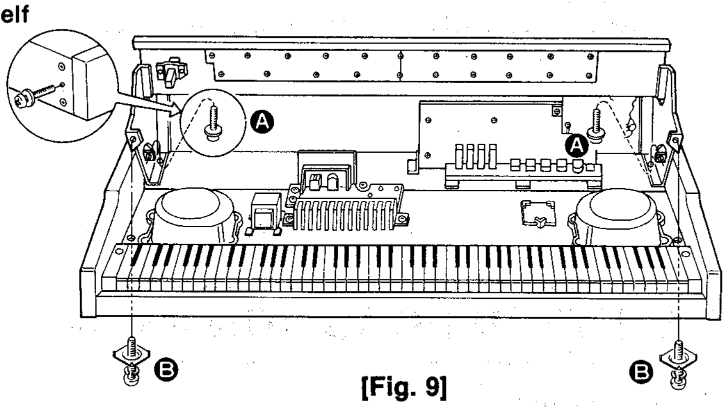


[Fig. 8]

2 How to remove the top cover

- Remove the keyboard cover according to procedure 1.

① Remove the 2 screws Ⓐ and 2 screws Ⓑ which fasten the top cover located under the shelf board.
② The top cover can be opend by lifting.

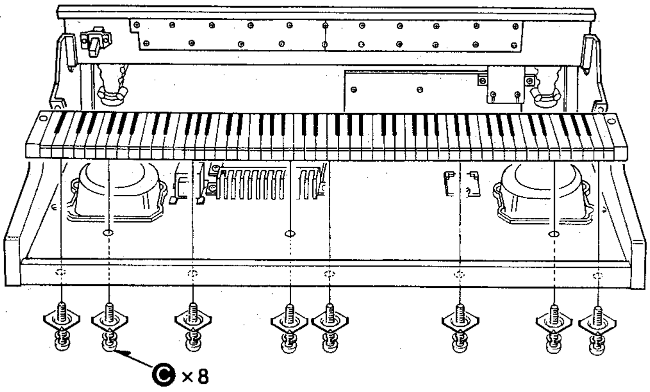


[Fig. 9]

3 How to remove the keyboard

- Open the top cover according to procedure 2.

① Remove the 8 screws Ⓒ which fasten the keyboard.



[Fig. 10]

4 How to remove the keys

- Remove the keyboard according to procedure 3.

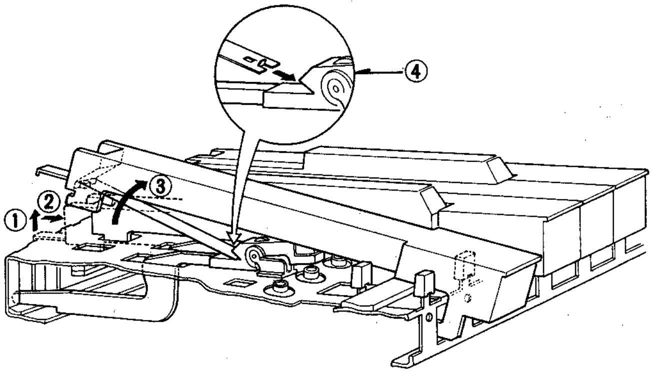
① Lift up the claw as shown Fig. 11-①.
② The key push to forward as shown Fig. 11-②. Key can be removed from chassis.
③ Lift up the key and take it out from chassis.

Note:

- In the case of disassembly black key remove the right and left white key at first and after that black key can be removed.

Reassembly method

① Insert the spring in to the hammer notch with the tang pointings-up as shown in Fig. 11-④.
② While holding the spring against the hammer, place the rear edge of the spring in the notch inside the rear edge of the key.
③ Slowly push the key down into the slots in the chassis.



[Fig. 11]

5 How to remove the printed circuit boards

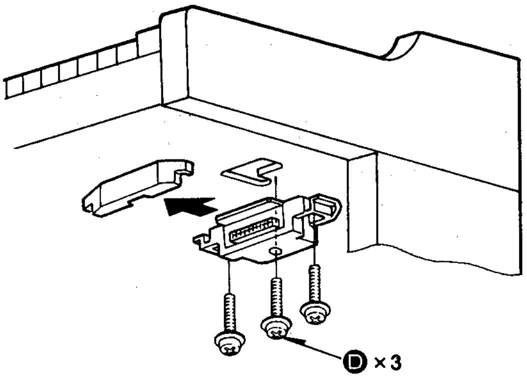
FDCN FD Connector P.C.B. (Fig. 12)

- Remove the 3 screws Ⓓ on the connector unit.

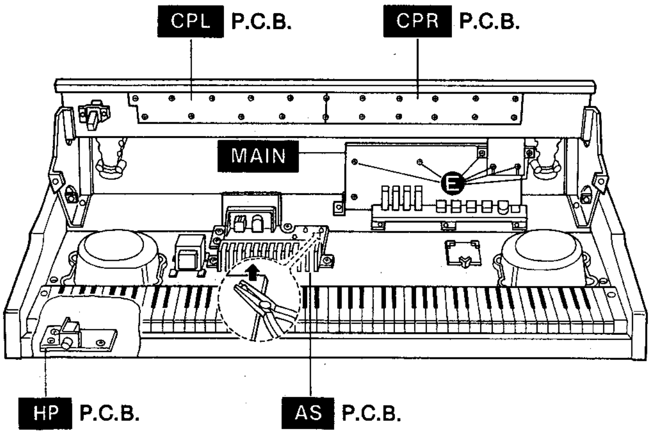
MAIN Main P.C.B.

- Remove the 6 screws Ⓔ on the Main P.C.B. (Fig. 13)
- Remove the 3 screws Ⓕ on the back of the top cover. (Fig. 14)

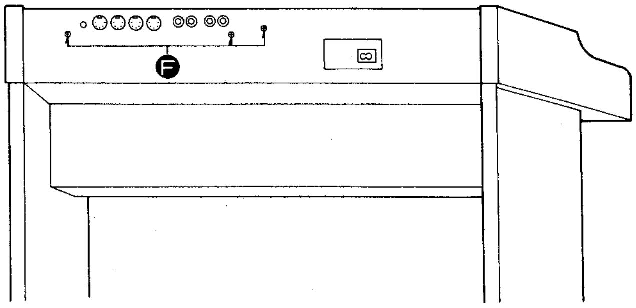
∗In the case of remove the P.C.B. except the above-mentioned, release the clows of P.C.B. holder and remove the screws on the each P.C.B.



[Fig. 12]



[Fig. 13]



[Fig. 14]

MEASUREMENTS AND ADJUSTMENTS

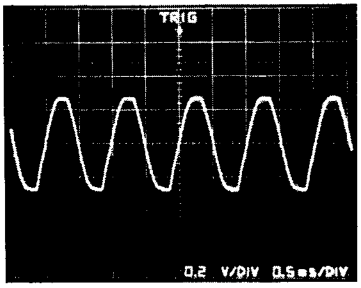
■ Measuring Equipment

- Oscilloscope 20MHz, 10 : 1 probe
- Oscillator, 1kHz sine wave, 0~10Vp-p, 600Ω
- Capacitor, 50V 1μF (ECEA1HN010S)

ADJUSTMENT	MEASURING CONDITIONS	EQUIPMENT	ADJUSTMENT P.C.B.	ADJ. POINT	CONNECT METER TO	METER READING
BBD bias (CHORUS)	any position	Oscilloscope and oscillator	MAIN P.C.B.	VR2	IC53-⑦	Photo-A
	1. Connect the oscilloscope to IC53-⑦ pin of MAIN circuit board. 2. Input 1kHz sine wave to IC52-③ pin by oscillator through capacitor of less than 50V 1μF. Then, adjust the output level of oscillator until the sinewave on the oscilloscope is clipped. 3. Adjust VR2 so that the output waveforms on the oscilloscope are evenly clipped at top and bottom.					

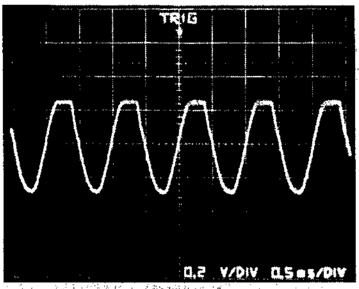
BBD bias adjustment

○: Good



[Photo-A]

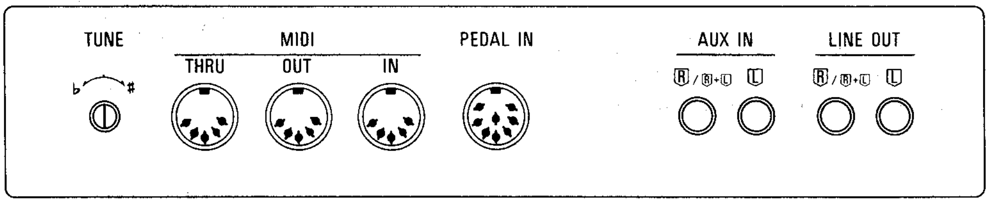
×: Fault



[Photo-B]

CONNECTION TERMINALS

(On the rear panel)



■ TUNE

During an ensemble performance with other instruments, fine adjustments of pitch can be made using this knob.

■ PEDAL IN

Connect the cord from the included stand to this terminal.

■ AUX IN (input level 500mV, 15KΩ)

Other instruments such as a rhythm machine or sound module can be connected to the piano so that the sound is output from the piano.
To receive monaural sound, connect instruments to the R/R+L terminal.

■ LINE OUT (output level 1.5V 600Ω)

By plugging into a Technics Tone Cabinet or a high-power amplifier, the sound can be reproduced at high volume. (Use the R/R+L terminal when outputting monaural sound.)

■ MIDI (Musical Instrument Digital Interface)

MIDI is standard specification that enables connection to equipment such as synthesizers and personal computers. Data transmission and reception are possible between the Technics Digital Piano instruments provided with MIDI terminals.

IN:	The terminal that receivers data from external equipment.
OUT:	The terminal that transmits data from the piano to external equipment.
THRU:	The terminal that transfers data from the **IN** terminal directly to other equipment.

- Use a 5-pin DIN cord (less than 15m long) for these connections.

PRECAUTIONS BEFORE SERVICING

■ Precautions for measuring of the output waveforms.

1. Please set the INITIAL mode before measurement.
   - •INITIAL mode: Press the FSC button to turn it on, and then press the INITIAL key on the keyboard.
2. After INITIAL mode, set the measurement conditions as each check points.
3. The waveform was measured by "National Digital Storage Oscilloscope VP-5730A". Therefore the waveforms of musical tone signals shown may somewhat change due to variation of timing of measure.
4. The voltage shown in the photo is 1/10 of the actual value. However, the actual voltage is 10 times of as shown in this photo.
5. The tone signal output varies with the level of key pressing force.
   In this measurement, the waveform obtained with maximum key pressing force is shown.
   However, the output level and waveform may very, depending on the timing and measuring instrument and other conditions in the measurement.

■ Important safety notice:

Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

■ Symbolic Marks

The symbolic marks for resistors and capacitors, which are used in the circuits for this Piano, are as shown in TABLE-1 and TABLE-2.

1. RESISTORS
   - •Resistors without symbolic mark are FIXED CARBON FILM RESISTORS (ERD-type).
   - •All resistors are 1/4WATT, ±5% TOLERANCE unless otherwise designated in the schematic diagrams.

(TABLE-1)

SYMBOL	SPECIFICATION	SYMBOL	SPECIFICATION
Ⓕ	Fixed Carbon Film Resistors "FLAME-PROOF" (ERD—F—type)	Ⓕ	Fixed Metal Film Resistors "FLAME-PROOF" (ERX—type)
Ⓕ	Fixed Wire Wound Resistors "FLAME-PROOF" (ERF—type)	🄵	Fuse Type Fixed Metal Oxide Film Resistors "FLAME-PROOF" (ERQ—type)
Ⓕ	Fixed Metal Oxide Film Resistors "FLAME-PROOF" (ERG—type)	🄵	Fuse Type Fixed Carbon Film Resistors "FLAME-PROOF" (ERD2FC—type)
	Fixed Metal Film Resistors (Precision and High Stability) (ERO—type)		

2. CAPACITORS
   - •Capacitors without symbolic mark are POLYESTER CAPACITORS. (ECQM-type, ECQG-type, ±10% Tolerance)
   - •Polarized capacitors without symbolic mark are Aluminum Electrolytic Capacitors. (ECEA—type, ±20% Tolerance)

(TABLE-2)

SYMBOL	SPECIFICATION	TYPE
Ⓝ	Non-Polarised Electrolytic Capacitors	ECEA—N—type
Ⓨ	Non-Polarised Electrolytic (for Network System)	ECEA—Y—type
Ⓚ	Aluminum Electrolytic Capacitors (Miniature type)	ECEA—K—type ECEA—X—type
(MS)	Aluminum Electrolytic Capacitors (Low leakage current type)	ECEA—M—type
Ⓩ	Aluminum Electrolytic Capacitors (Low impeadance type)	ECEA—Z—type
(TF)	Metalized Plastic Film Capacitors (TF Series)	ECQV—type
(TF)	Polyester Film Capacitors	ECQB—type
○	Temprature Compensating Ceramic Capacitors	ECC—type
○	High-Dielectric Constant Ceramic Capacitors	ECK—type
	Metalized Polyester Film Capacitors for Across the Line	ECQ—EW—type
	Aluminum Electrolytic Capacitors for smooting Circuit	ECES—type

■ Symptoms which appear to be signs of trouble

The following changes in performance may occur in the Technics digital piano but do not indicate trouble.

Phenomenon	Remedy
When many keys are pressed at the same time, not all of them sound.	When the **AUTO PLAY CHORD** is off, the maximum number of notes wheich can sound simultaneously from the combined right and left keyboards is 12. When the **AUTO PLAY CHORD** is on, the maximum is 8 notes.
Sustain does not work, even when the sustain pedal is pressed.	Sustain is set separately for the right and left sections. Turn the **SUSTAIN PEDAL** button on for either or both parts.
The rhythm does not start.	• When a **PLAY SEQUENCER** button is on and a song without any rhythm is stored, the rhythm does not start. • When the clock mode is set to **MIDI CLOCK**, the rhythm does not start if no MIDI clock signal is received from another instrument. When using only the piano, return the clock mode to the internal clock, for example by turning off the **POWER** once.
Nothing is stored in the **PROGRAM CHORD COMPUTER** or **PLAY SEQUENCER**.	Selections must be made within 5 seconds after the **RECORD** button is pressed. After 5 seconds the **RECORD** button turns off and no further storage is possible.
Nothing is stored in the **PROGRAM CHORD COMPUTER**.	When storing chords, press a measure key (├─┤ , ├┼┤ , ├┼┼┼┤) while holding down the chord. Be sure that the chord is not released until after the measure key is pressed.
When playing back the **PROGRAM CHORD COMPUTER**, the accompaniment is not performed.	When the **AUTO PLAY CHORD** is off, the **BASS** and **ACCOMP** do not sound; only the rhythm changes are performed. To play back the accompaniment, select an **AUTO PLAY CHORD** mode (**BASIC** or **ADVANCED**).
The **RECORD** and **PLAY SEQUENCER** indicators are flashing slowly, but storage is not performed.	• Storage is not possible when the **FSC** button is on. Turn it off before storing. • If another **PLAY SEQUENCER** indicator is lit, press the **START/STOP** button for automatic performance of the stored part. Another part can then be stored.
When playing back the **PLAY SEQUENCER**, a fast rhythm tempo becomes slower.	This may happen when an extremely large number of notes are programmed to be played at one time. Slow down the tempo, or decrease the number of notes to be played at one time.
When the operation to play back from the optional memory card is performed, the contents of the piano's internal memory are erased.	When performing the playback operation from a memory card, the piano's internal memory changes to that stored in the memory card. To preserve a song in the piano's memory, store it in a memory card.
The normal sound is not produced when the keys are played. Instead, the sounds from rhythm instruments are heard.	When the **KEYBOARD PERCUSSION** button in the **RIGHT TONE** block is on, the sounds of the percussive instruments indicated above the keys are produced. To return to the normal piano sound, select a different tone in the **RIGHT TONE** block.
The buttons, keys, etc. malfunction.	• Press the **FSC** (**FULLBAND SETTING COMPUTER**) button to turn it on, and then press the **INITIAL** key on the keyboard. • If the buttons and keys do not return to normal, turn off the **POWER** once, then on again. Turn on the **FSC** button and press the **INITIAL** key.
No sound is produced when the keys are pressed.	No sound is produced with the **LEFT** and **RIGHT** indicators in the **BALANCE** section are off. Press the ▲ buttons.
The keys on the left keyboard do not sound.	When on **TONE** indicator is lit for the left section, the left keyboard keys do not sound. Select and press a **TONE** button for the left keyboard.

MIDI IMPLEMENTATION CHART

[**PCM Digital Piano**]

[**SX-PR100/SX-PR200/SX-PR300**]

(Transmitted)

Function...		RIGHT	LEFT	ACCOMP	BASS	DRUMS	Remarks
Basic	Default	1~14, 16	1~14, 16	1~14, 16	1~14, 16	15	memorized
Channel	Changed	1~14, 16	1~14, 16	1~14, 16	1~14, 16	×	
	Default	3	3	3	3	3	OMNI OFF POLY MODE
Mode	Messages	×	×	×	×	×	
	Altered	——	——	——	——	——	
Note		4~126	4~126	4~126	4~126	×	(PR100) Changes depending on the position of the MIDI octave shift
Number		1~126	1~126	1~126	1~126	×	(PR200/PR300)
	True voice	——	——	——	——	——	
Velocity	Note ON	○	○	○	○	×	
	Note OFF	× (9nH:V=0)	× (9nH:V=0)	× (9nH:V=0)	× (9nH:V=0)	——	
After	Key's	×	×	×	×	×	
Touch	Ch's	×	×	×	×	×	
Pitch Bender		×	×	×	×	×	
Control	7	*○ ×	*○ ×	*○ ×	*○ ×	*○ ×	balance
Change	64	*○ ×	*○ ×	*○ ×	*○ ×	×	sustain pedal
	66	*○ ×	*○ ×	×	×	×	sostenuto pedal
	67	*○ ×	*○ ×	×	×	×	soft pedal
	80	×	*○ ×	×	×	×	auto play chord
	81	×	×	×	×	*○ ×	bass & accomp
	82	×	×	×	×	*○ ×	ending, fill in & intro
	83	*○ ×	*○ ×	×	×	×	oct shift
	93	*○ ×	*○ ×	*○ ×	×	×	chorus
Prog		*○ ×	*○ ×	*○ ×	*○ ×	*○ ×	Refer to MIDI manual regarding program change number
Change	True #	——	——	——	——	——	
System Exclusive		×					
System	Song Pos	×					
	Song Sel	*○ (0~19) ×					
Common	Tune	×					
System	Clock	○					
Real Time	Commands	*○×					start/stop
Aux	Local ON/OFF	×	×	×	×	×	
	All Notes OFF	○	○	○	○	×	
Messages	Active Sense	○					
	Reset	×					
Notes		*○ ×.......... Whether or not the data for each of these items is transmitted can be set.					

Mode 1: OMNI ON, POLY **Mode 2:** OMNI ON, MONO ○ : Yes

Mode 3: OMNI OFF, POLY **Mode 4:** OMNI OFF, MONO × : No

[**SX-PR100/SX-PR200/SX-PR300**]

(Recognized)

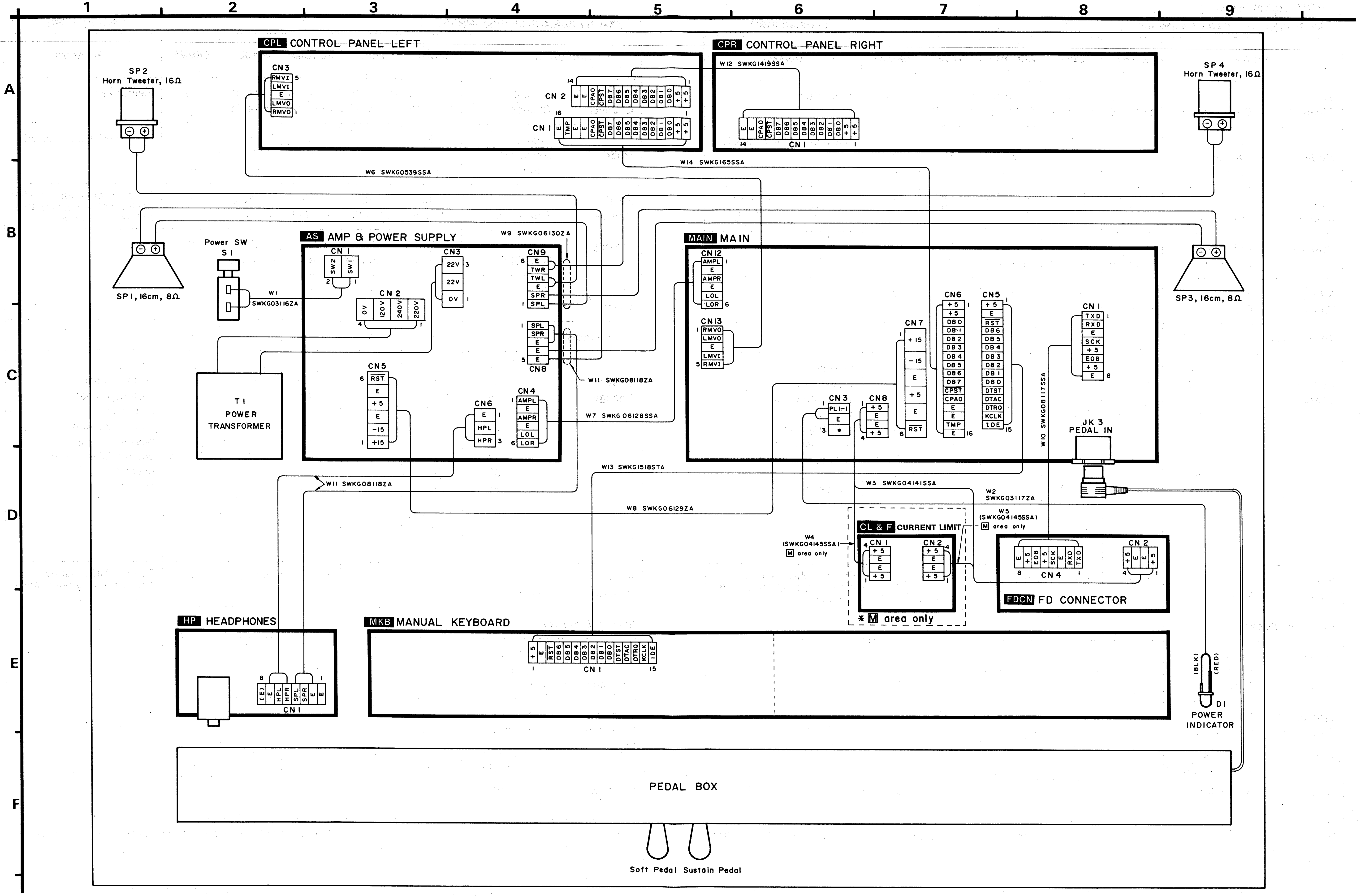
Function...		RIGHT	LEFT	ACCOMP	BASS	DRUMS	Remarks
Basic	Default	1~14, 16	1~14, 16	1~14, 16	1~14, 16	15	memorized
Channel	Changed	1~14, 16	1~14, 16	1~14, 16	1~14, 16	×	
	Default	3	3	3	3	3	OMNI OFF POLY MODE
Mode	Messages	×	×	×	×	×	
	Altered	——	——	——	——	——	
Note		1~126	1~126	1~126	1~126	×	Changes depending on the position of the octave shift or transpose control.
Number	True voice	21~119	21~119	21~119	21~119	×	
Velocity	Note ON	○	○	○	○	×	
	Note OFF	× (9nH:V=0)	× (9nH:V=0)	× (9nH:V=0)	× (9nH:V=0)	×	
After	Key's	×	×	×	×	×	
Touch	Ch's	×	×	×	×	×	
Pitch Bender		×	×	×	×	×	
Control	7	*○ ×	*○ ×	*○ ×	*○ ×	*○ ×	balance
Change	64	*○ ×	*○ ×	*○ ×	*○ ×	×	sustain pedal
	66	*○ ×	*○ ×	×	×	×	sostenuto pedal
	67	*○ ×	*○ ×	×	×	×	soft pedal
	80	×	*○ ×	×	×	×	auto play chord
	81	×	×	×	×	*○ ×	bass & accomp
	82	×	×	×	×	*○ ×	ending, fill in & intro
	83	*○ ×	*○ ×	×	×	×	oct shift
	93	*○ ×	*○ ×	*○ ×	×	×	chorus
Prog		*○ ×	*○ ×	*○ ×	*○ ×	×	Refer to MIDI manual regarding program change number
Change	True #						
System Exclusive		×					
System	Song Pos	×					
	Song Sel	*○ (0~19) ×					
Common	Tune	×					
System	Clock	○					
Real Time	Commands	*○×					start/stop
Aux	Local ON/OFF	×	×	×	×	×	
	All Notes OFF	○	○	○	○	×	(123~127)
Messages	Active Sense	○					
	Reset	×					
Notes		*○ ×.......... Whether or not the data for each of these items is received can be set.					

Mode 1: OMNI ON, POLY **Mode 2:** OMNI ON, MONO ○ : Yes

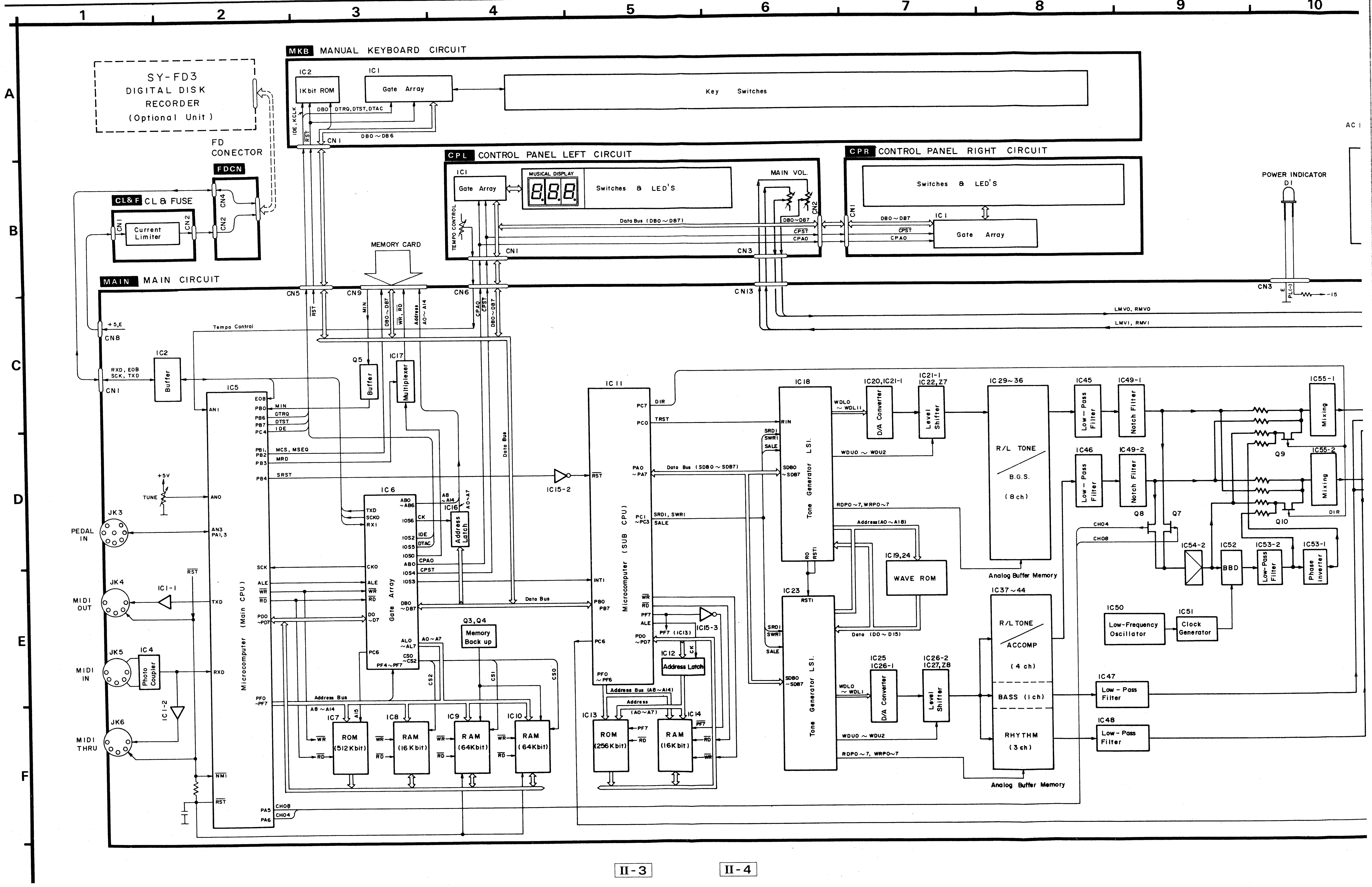
Mode 3: OMNI OFF, POLY **Mode 4:** OMNI OFF, MONO × : No

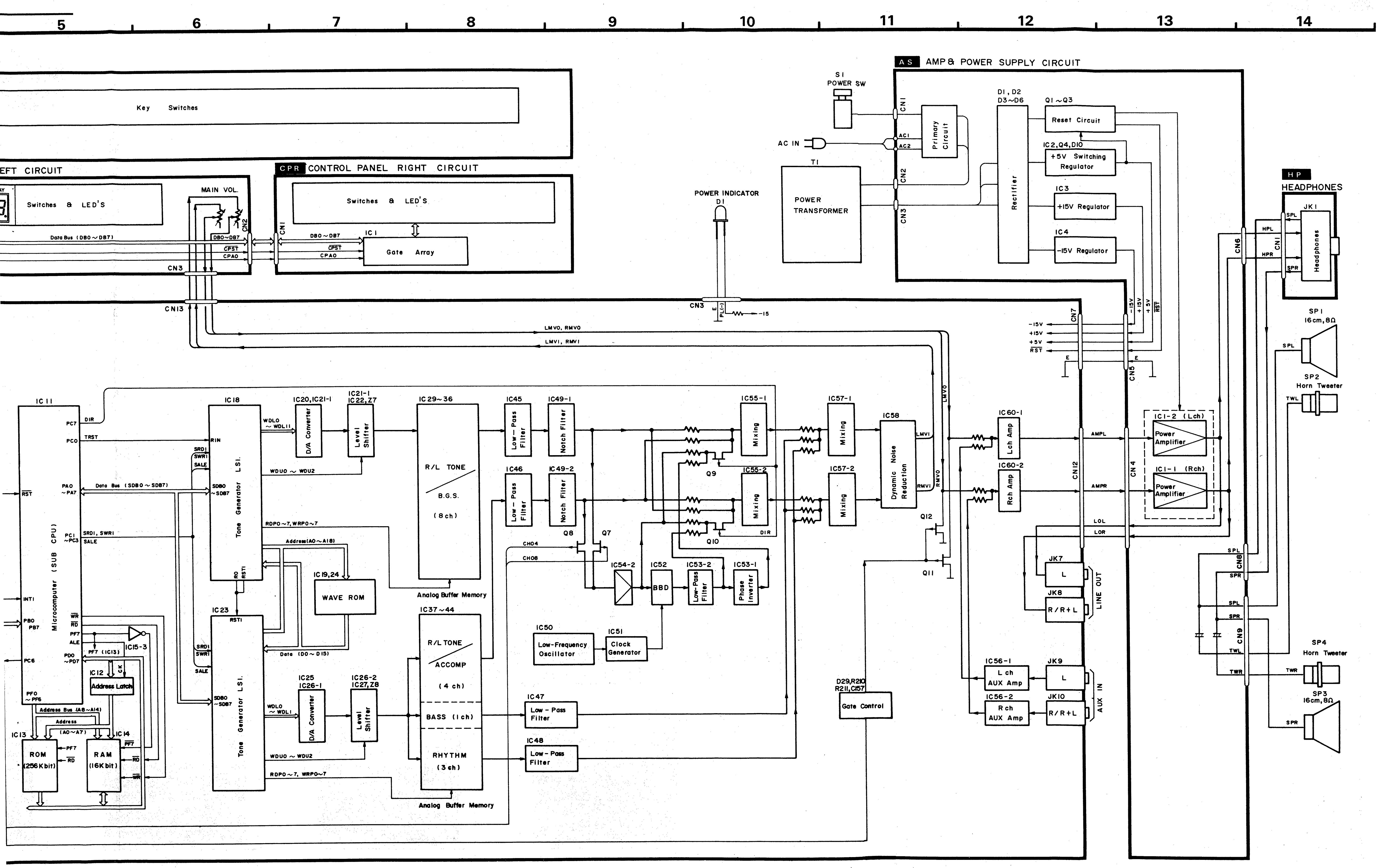
- This product adheres to MIDI specifications as published by the Japan MIDI Association.

WIRING CONNECTION DIAGRAM


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
CPL CONTROL PANEL LEFT
CN3
RMVI
LMVI
E
LMVO
RMVO
CN 2
E
E
CPAO
CPST
DB7
DB6
DB5
DB4
DB3
DB2
DB1
DB0
+5
+5
CN 1
E
TMP
E
E
CPAO
CPST
DB7
DB6
DB5
DB4
DB3
DB2
DB1
DB0
+5
+5
CPR CONTROL PANEL RIGHT
W12 SWKG1419SSA
CN I
SP2
Horn Tweeter, 16Ω
SP 4
Horn Tweeter, 16Ω
W6 SWKG0539SSA
W14 SWKG165SSA
Power SW
S I
W1
SWKG03116ZA
SP1, 16cm, 8Ω
SP3, 16cm, 8Ω
AS AMP & POWER SUPPLY
CN 1
SW2
SW1
CN 2
0V
120V
240V
220V
CN3
22V
22V
0V
CN9
E
TWR
TWL
E
SPR
SPL
SPL
SPR
E
E
E
CN8
W9 SWKG06130ZA
W11 SWKG08118ZA
CN5
RST
E
+5
E
−15
+15
CN6
E
HPL
HPR
CN4
AMPL
E
AMPR
E
LOL
LOR
T1
POWER
TRANSFORMER
W7 SWKG06128SSA
MAIN MAIN
CN12
AMPL
E
AMPR
E
LOL
LOR
CN13
RMVO
LMVO
E
LMVI
RMVI
CN7
+15
−15
E
+5
E
RST
CN6
+5
+5
DB0
DB1
DB2
DB3
DB4
DB5
DB6
DB7
CPST
CPAO
E
E
TMP
E
CN5
+5
E
RST
DB6
DB5
DB4
DB3
DB2
DB1
DB0
DTST
DTAC
DTRQ
KCLK
IDE
CN3
PL(−)
E
●
CN8
+5
E
E
+5
CN1
TXD
RXD
E
SCK
+5
EOB
+5
E
W10 SWKG08117SSA
JK 3
PEDAL IN
W13 SWKG1518STA
W11 SWKG08118ZA
W3 SWKG04141SSA
W2
SWKG03117ZA
W8 SWKG06129ZA
W5
(SWKG04145SSA)
M area only
W4
(SWKG04145SSA)
M area only
CL & F CURRENT LIMIT
CN 1
+5
E
E
+5
CN 2
+5
E
E
+5
✱ M area only
CN 4
E
+5
EOB
+5
SCK
E
RXD
TXD
CN 2
+5
E
E
+5
FDCN FD CONNECTOR
HP HEADPHONES
CN1
(E)
E
HPL
HPR
SPL
SPR
E
E
MKB MANUAL KEYBOARD
CN 1
+5
E
RST
DB6
DB5
DB4
DB3
DB2
DB1
DB0
DTST
DTAC
DTRQ
KCLK
IDE
(BLK)
(RED)
D1
POWER
INDICATOR
PEDAL BOX
Soft Pedal
Sustain Pedal

BLOCK DIAGRAM


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
SY-FD3
DIGITAL DISK
RECORDER
(Optional Unit)
FD
CONECTOR
FDCN
CN4
CN2
CL&F CL & FUSE
CN1
Current Limiter
CN2
MKB MANUAL KEYBOARD CIRCUIT
IC2
1Kbit ROM
IC1
Gate Array
Key Switches
IDE, KCLK
RST
DB0
DTRQ, DTST, DTAC
DB0 ~ DB6
CN1
CPL CONTROL PANEL LEFT CIRCUIT
IC1
Gate Array
MUSICAL DISPLAY
Switches & LED'S
TEMPO CONTROL
MAIN VOL.
Data Bus (DB0 ~ DB7)
DB0 ~ DB7
CPST
CPA0
CN2
CN1
CN3
CPR CONTROL PANEL RIGHT CIRCUIT
Switches & LED'S
CN1
DB0 ~ DB7
CPST
CPA0
IC1
Gate Array
POWER INDICATOR
D1
AC I
MEMORY CARD
MAIN MAIN CIRCUIT
CN5
CN9
CN6
CN13
CN3
RST
MIN
DB0 ~ DB7
WR, RD
Address
A0 ~ A14
CPA0
CPST
DB0 ~ DB7
E
PL(-)
-15
LMV0, RMV0
LMV1, RMV1
+5, E
CN8
Tempo Control
IC2
Buffer
RXD, EOB
SCK, TXD
CN1
IC5
AN1
EOB
PB0
PB6
PB7
PC4
MIN
DTRQ
DTST
IDE
PB1, PB2
PB3
MCS, MSEQ
MRD
SRST
PB4
+5V
TUNE
AN0
JK3
PEDAL IN
AN3
PA1, 3
SCK
ALE
WR
RD
JK4
MIDI OUT
IC1-1
RST
TXD
PD0 ~ PD7
JK5
MIDI IN
IC4
Photo Coupler
RXD
IC1-2
JK6
MIDI THRU
PF0 ~ PF7
NMI
RST
PA5
PA6
CH08
CH04
Microcomputer (Main CPU)
Q5
Buffer
IC17
Multiplexer
IC6
TXD
SCKO
RXI
CKO
ALE
WR
RD
D0 ~ D7
PC6
AB0 ~ AB6
IOS6
IOS2
IOS5
IOS0
AB0
IOS4
IOS3
DB0 ~ DB7
AL0 ~ AL7
CS0 ~ CS2
PF4 ~ PF7
Gate Array
A8 ~ A14
IC16
Address Latch
A0 ~ A7
CK
IDE
DTAC
CPA0
CPST
Data Bus
A0 ~ A7
Q3, Q4
Memory Back up
CS2
CS1
CS0
Address Bus
A8 ~ A14
A15
IC7
ROM (512Kbit)
IC8
RAM (16Kbit)
IC9
RAM (64Kbit)
IC10
RAM (64Kbit)
WR
RD
IC15-2
IC11
PC7
PC0
DIR
TRST
RST
PA0 ~ PA7
Data Bus (SDB0 ~ SDB7)
PC1 ~ PC3
SRD1, SWR1
SALE
INT1
PB0
PB7
WR
RD
PF7
ALE
PD0 ~ PD7
PC6
PF0 ~ PF6
Microcomputer (SUB CPU)
IC15-3
PF7 (IC13)
IC12
CK
Address Latch
Address Bus (A8 ~ A14)
Address
(A0 ~ A7)
IC13
ROM (256Kbit)
PF7
RD
IC14
RAM (16Kbit)
PF7
RD
WR
IC18
RIN
SRD1
SWR1
SALE
SDB0 ~ SDB7
R0
RST1
Tone Generator LSI.
WDL0 ~ WDL11
WDU0 ~ WDU2
RDP0 ~ 7, WRP0 ~ 7
Address (A0 ~ A18)
IC19, 24
WAVE ROM
Data (D0 ~ D15)
IC23
RST1
SRD1
SWR1
SALE
SDB0 ~ SDB7
Tone Generator LSI.
WDL0 ~ WDL1
WDU0 ~ WDU2
RDP0 ~ 7, WRP0 ~ 7
IC20, IC21-1
D/A Converter
IC21-1
IC22, Z7
Level Shifter
IC25
IC26-1
D/A Converter
IC26-2
IC27, Z8
Level Shifter
IC29 ~ 36
R/L TONE
B.G.S.
(8ch)
Analog Buffer Memory
IC37 ~ 44
R/L TONE
ACCOMP
(4 ch)
BASS (1ch)
RHYTHM
(3ch)
Analog Buffer Memory
IC45
Low-Pass Filter
IC46
Low-Pass Filter
IC49-1
Notch Filter
IC49-2
Notch Filter
IC47
Low-Pass Filter
IC48
Low-Pass Filter
Q9
Q10
Q8
Q7
CH04
CH08
IC55-1
Mixing
IC55-2
Mixing
DIR
IC54-2
IC52
BBD
IC53-2
Low-Pass Filter
IC53-1
Phase Inverter
IC50
Low-Frequency Oscillator
IC51
Clock Generator


5
6
7
8
9
10
11
12
13
14
Key Switches
EFT CIRCUIT
Switches & LED'S
MAIN VOL.
Data Bus (DB0～DB7)
DB0～DB7
CPST
CPA0
CN2
CN3
CN13
CPR CONTROL PANEL RIGHT CIRCUIT
Switches & LED'S
CN1
DB0～DB7
CPST
CPA0
IC1
Gate Array
POWER INDICATOR
D1
CN3
E
PL(-)
-15
S1
POWER SW
AC IN
AS AMP & POWER SUPPLY CIRCUIT
CN1
AC1
AC2
CN2
CN3
Primary Circuit
T1
POWER TRANSFORMER
D1, D2
D3～D6
Rectifier
Q1～Q3
Reset Circuit
IC2, Q4, D10
+5V Switching Regulator
IC3
+15V Regulator
IC4
-15V Regulator
-15V
+15V
+5V
RST
CN5
E
HP
HEADPHONES
JK1
SPL
HPL
HPR
SPR
CN1
Headphones
CN6
SP1
16cm, 8Ω
SPL
SP2
Horn Tweeter
TWL
CN7
-15V
+15V
+5V
RST
E
LMVO, RMVO
LMVI, RMVI
IC11
PC7
DIR
PC0
TRST
RST
PA0
～PA7
Data Bus (SDB0～SDB7)
PC1
～PC3
SRD1, SWR1
SALE
Microcomputer (SUB CPU)
INT1
PB0
PB7
WR
RD
PF7
ALE
PF7 (IC13)
IC15-3
PC6
PD0
～PD7
IC12
CK
Address Latch
PF0
～PF6
Address Bus (A8～A14)
Address
(A0～A7)
IC13
ROM
(256 K bit)
PF7
RD
IC14
RAM
(16K bit)
PF7
RD
WR
IC18
RIN
SRD1
SWR1
SALE
SDB0
～SDB7
Tone Generator LSI.
RO
RSTI
WDL0
～WDL11
WDU0 ～ WDU2
RDP0～7, WRP0～7
Address (A0～A18)
IC19, 24
WAVE ROM
Data (D0～D15)
IC23
RSTI
SRD1
SWR1
SALE
SDB0
～SDB7
Tone Generator LSI.
WDL0
～WDL1
WDU0 ～ WDU2
RDP0～7, WRP0～7
IC20, IC21-1
D/A Converter
IC21-1
IC22, Z7
Level Shifter
IC25
IC26-1
D/A Converter
IC26-2
IC27, Z8
Level Shifter
IC29～36
R/L TONE
B.G.S.
(8ch)
Analog Buffer Memory
IC37～44
R/L TONE
ACCOMP
(4 ch)
BASS (1ch)
RHYTHM
(3ch)
Analog Buffer Memory
IC45
Low-Pass Filter
IC49-1
Notch Filter
IC46
Low-Pass Filter
IC49-2
Notch Filter
Q8
Q7
CH04
CH08
IC54-2
IC52
BBD
IC53-2
Low-Pass Filter
IC53-1
Phase Inverter
IC50
Low-Frequency Oscillator
IC51
Clock Generator
IC47
Low-Pass Filter
IC48
Low-Pass Filter
IC55-1
Mixing
Q9
IC55-2
Mixing
DIR
Q10
IC57-1
Mixing
IC57-2
Mixing
IC58
Dynamic Noise Reduction
LMVI
RMVI
LMVO
RMVO
Q12
Q11
D29, R210
R211, C157
Gate Control
IC60-1
Lch Amp
IC60-2
Rch Amp
CN12
AMPL
AMPR
LOL
LOR
CN4
IC1-2 (Lch)
Power Amplifier
IC1-1 (Rch)
Power Amplifier
JK7
L
JK8
R/R+L
LINE OUT
IC56-1
L ch
AUX Amp
IC56-2
R ch
AUX Amp
JK9
L
JK10
R/R+L
AUX IN
SPL
SPR
CN8
SPL
SPR
TWL
TWR
CN9
SP4
Horn Tweeter
TWR
SP3
16cm, 8Ω
SPR

MAIN

MAIN CIRCUIT BOARD

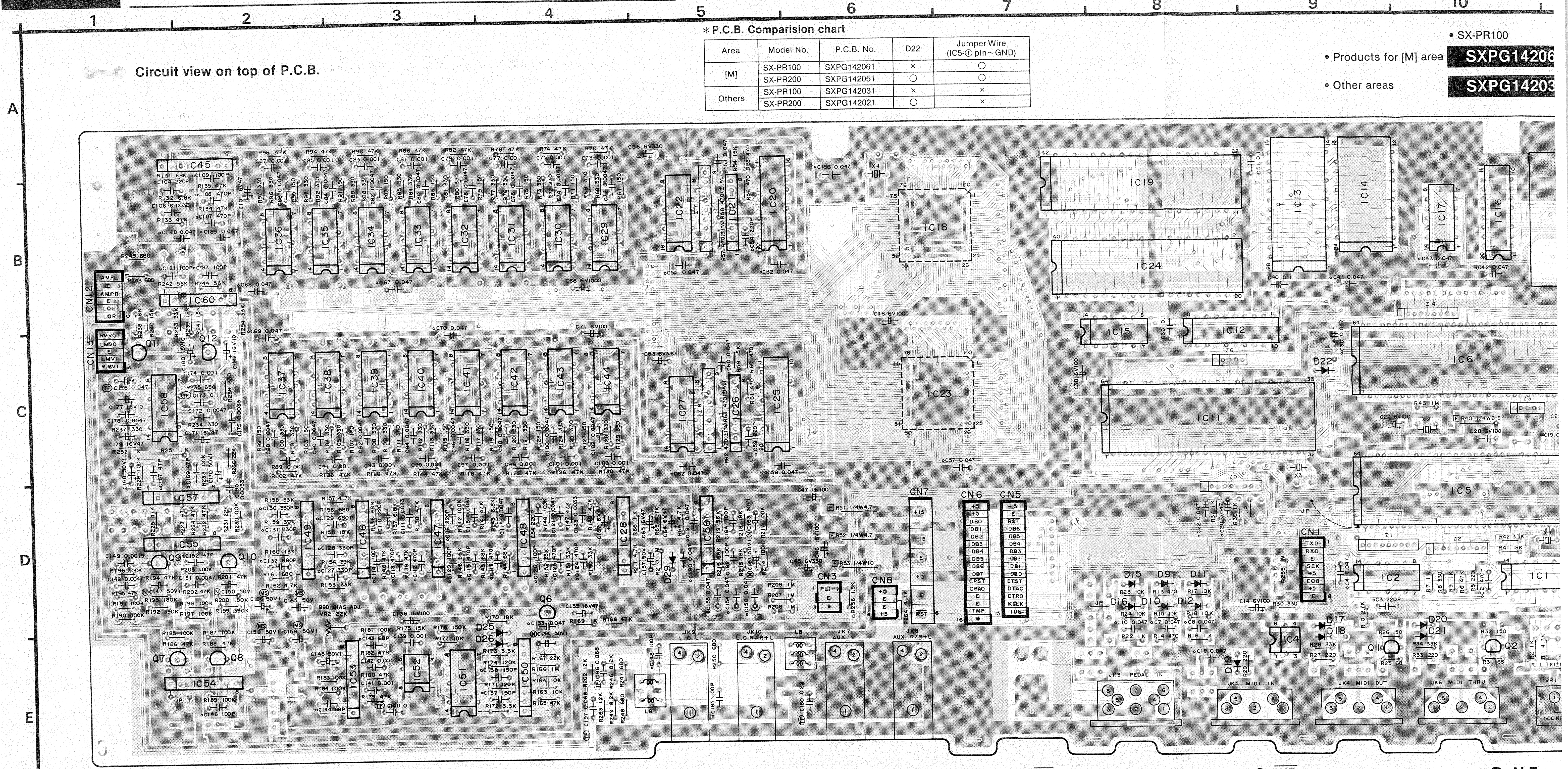
Circuit view on top of P.C.B.

* P.C.B. Comparision chart

Area	Model No.	P.C.B. No.	D22	Jumper Wire (IC5-① pin~GND)
[M]	SX-PR100	SXPG142061	×	○
	SX-PR200	SXPG142051	○	○
Others	SX-PR100	SXPG142031	×	×
	SX-PR200	SXPG142021	○	×

- SX-PR100

• Products for [M] area	SXPG14206
• Other areas	SXPG14203


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
IC45
IC36
IC35
IC34
IC33
IC32
IC31
IC30
IC29
IC22
IC21
IC20
IC18
IC19
IC24
IC13
IC14
IC17
IC16
IC60
CN12
AMPL
E
AMPR
E
LOL
LOR
CN13
RMVO
LMVO
E
LMVI
RMVI
Q11
Q12
IC58
IC37
IC38
IC39
IC40
IC41
IC42
IC43
IC44
IC27
IC26
IC25
IC23
IC15
IC12
IC6
IC11
IC5
D22
IC57
IC55
Q9
Q10
IC49
IC46
IC47
IC48
IC28
IC56
D29
CN7
CN6
CN5
CN3
CN8
CN1
TXO
RXO
E
SCK
+5
EOB
+5
E
IC2
IC1
IC4
D15
D9
D11
D16
D10
D12
D17
D18
D20
D21
D19
Q1
Q2
Q6
Q7
Q8
IC54
IC53
IC52
IC51
IC50
D25
D26
VR2 22K
BIAS ADJ.
JK9 L.O.L
JK10 L.O.R/R+L
L8
JK7 AUX L
JK8 AUX R/R+L
L9
JK3 PEDAL IN
JK5 MIDI IN
JK4 MIDI OUT
JK6 MIDI THRU
X4
X2
X3
Z1
Z2
Z3
Z4
Z5
Z6
Z7
Z8
500KΩ

❶ TUNE

• Tune

♭..............................0V

⟆

center..................+2.5V

⟆

♯..........................+5V

❷ Tempo Control

♩=50 ....0V

⟆

♩=300 ....+5V

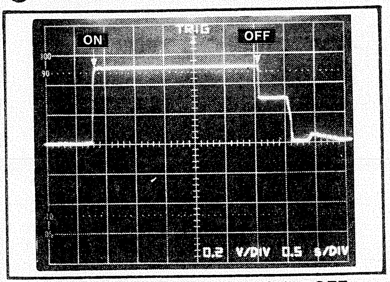
❹ Sustain

OFF 0V

⟆

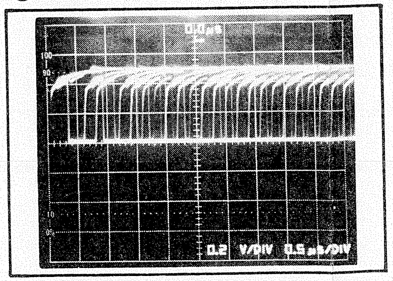
Max ....+5V

❺ $\overline{\text{RST}}$

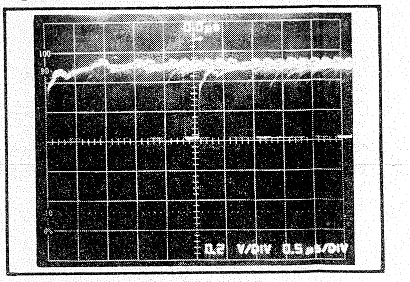


• Power..............................ON → OFF

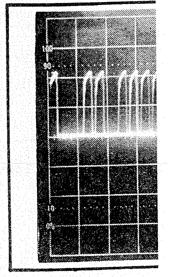
❻ $\overline{\text{RD}}$



❼ $\overline{\text{WR}}$



❽ ALE

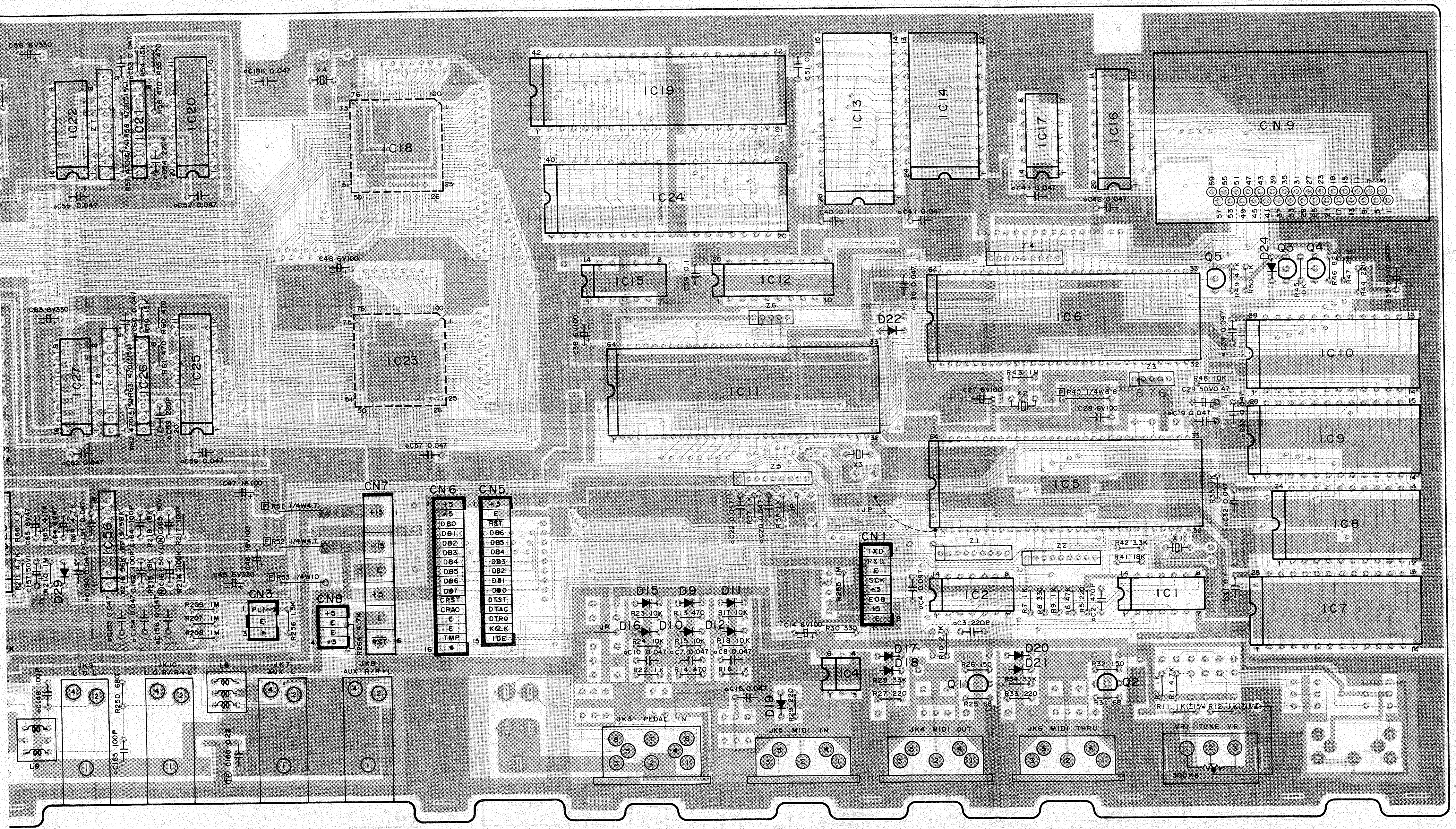


5 6 7 8 9 10 11 12 13 14

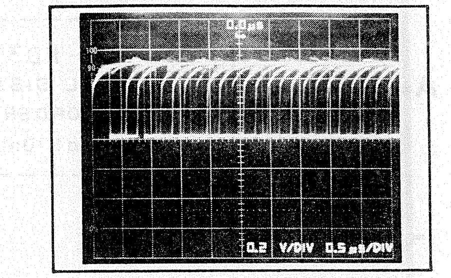
＊P.C.B. Comparision chart

Area	Model No.	P.C.B. No.	D22	Jumper Wire (IC5-① pin～GND)
[M]	SX-PR100	SXPG142061	×	○
	SX-PR200	SXPG142051	○	○
Others	SX-PR100	SXPG142031	×	×
	SX-PR200	SXPG142021	○	×

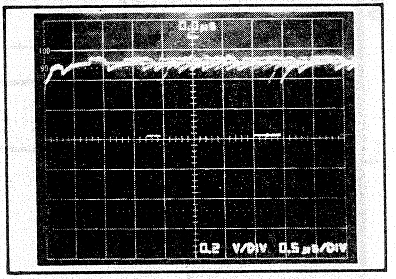
	• SX-PR100	• SX-PR200
• Products for [M] area	SXPG142061	SXPG142051
• Other areas	SXPG142031	SXPG142021


IC1
IC2
IC4
IC5
IC6
IC7
IC8
IC9
IC10
IC11
IC12
IC13
IC14
IC15
IC16
IC17
IC18
IC19
IC20
IC21
IC22
IC23
IC24
IC25
IC26
IC27
IC56
CN1
CN3
CN5
CN6
CN7
CN8
CN9
Q1
Q2
Q3
Q4
Q5
D15 D9 D11
D16 D10 D12
D17 D18 D20 D21
D19 D22 D24 D29
X1 X2 X3 X4
JK3 PEDAL IN
JK4 MIDI OUT
JK5 MIDI IN
JK6 MIDI THRU
JK7 AUX L
JK8 AUX R/R+L
JK9 L O L
JK10 L O R/R+L
VR1 TUNE VR 500KB
L8 L9

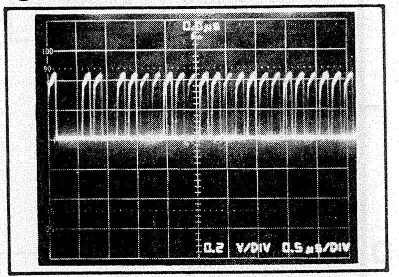
❿ $\overline{\text{RD}}$



⓫ $\overline{\text{WR}}$



⓬ ALE



NOTES:

- IC'S

IC1:	SVIGM74LS07
IC2:	SVIGM74LS05
IC4:	SVIGTLP513
IC5, 11:	SVIG7810HCW
IC6:	SVIGM603A114
IC7:	SVIG5R300AX1
IC8, 14:	SVIGD446C25
IC9, 10:	SVIGD446415L
IC12:	SVIGTC40H373
IC13:	SVIG2R300BX1
IC15:	SVIGTC40H004
IC16:	SVIGTC40H374
IC17:	SVIGTC40H000
IC18, 23:	MN6635
IC19 ┌IC1:	SVIGU3C04203
IC19 └IC2:	SVIGU3C04204
IC20, 25:	SVIGBA9221
IC21, 26:	SVIGM5238L
IC22, 27:	SVIGT74H4051
IC24:	SVIGU3C04165
IC28, 45～50, 53～57, 68:	SVIGM5218L
IC29～44:	SVIGM74H4066
IC51:	SVIGMSM4011
IC52:	MN3009
IC58:	SVIGLM1894N

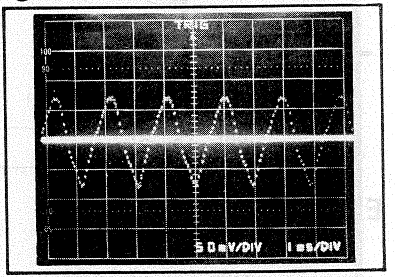
- TRANSISTORS

Q1～3, 5:	2SA1015-GR
Q4, 6:	2SC2320LFG
Q7～12:	2SJ105GR

- DIODES

D9～12, 15～22, 24～26, 29:	MA165TA5

⓭

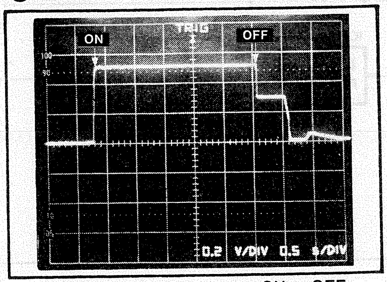


- Right Tone..........................Piano I
- Balance (Right)..................Max
- Keyboard ....C_{52}

..........0V

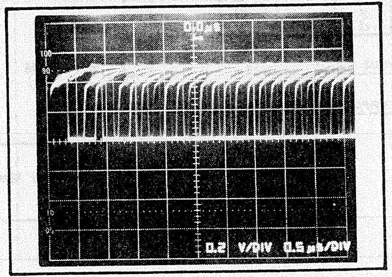
..........+5V

❺ $\overline{\text{RST}}$

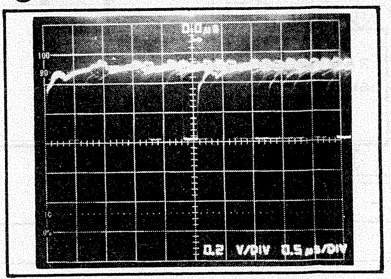


- Power.................................ON → OFF

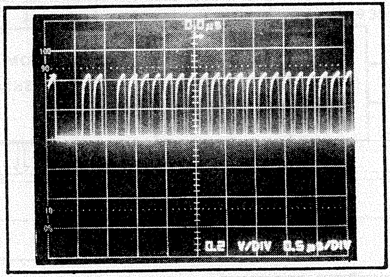
❻ $\overline{\text{RD}}$



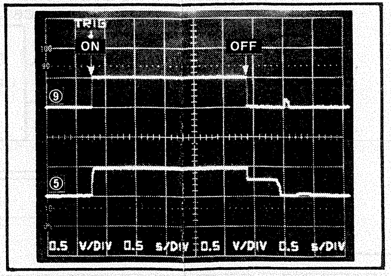
❼ $\overline{\text{WR}}$



❽ ALE

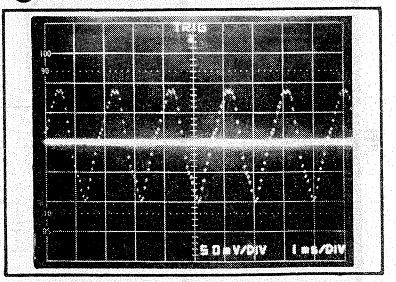


❾ $\overline{\text{RST}}$, ❺ $\overline{\text{RST}}$



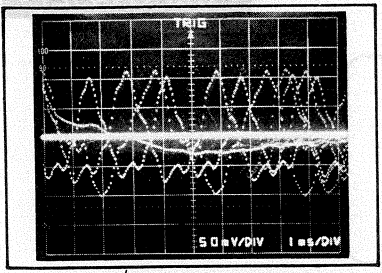
- Power.................................ON → OFF

⓮



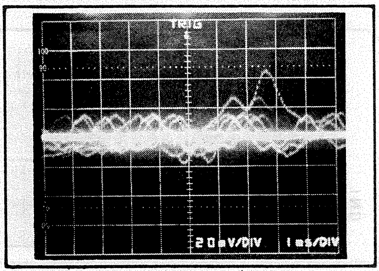
- Right Tone..........................Piano I
- Balance (Right)..................Max
- Keyboard ....C_{52}

⑮



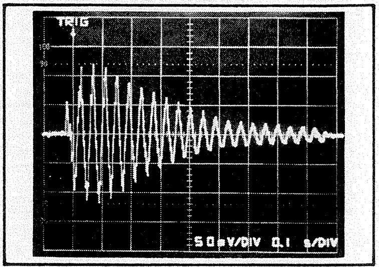
- Auto Play Chord..................Basic
- Bass & Accomp..................3
- Start/Stop...........................Start

⑯



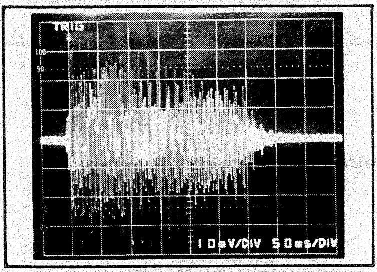
- Rhythm...............................Salsa
- Balance (all)........................Max
- C key...ON • Tempo... ♩=50

⑰ R/L Tone



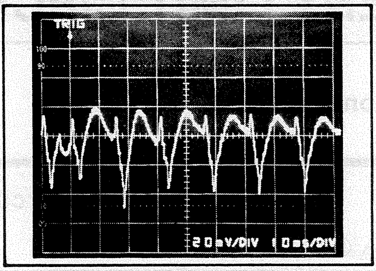
- Right Tone...........................Piano I
- Balance (Right)...................Max
- Keyboard ....C_{52}

⑱ Accomp



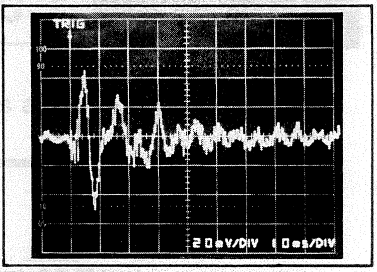
- APC...Basic • Rhythm...Salsa
- Bass & Accomp...3 • Tempo... ♩=50
- Balance (Accomp)...Max • C key...ON
- Start/Stop...Start

⑲ Bass (Electric Bass)



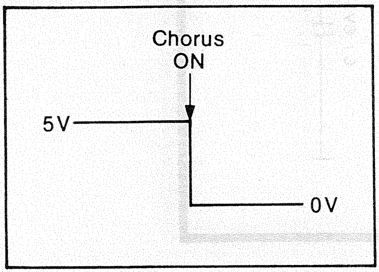
- APC...Basic • Rhythm...Disco I
- Bass & Accomp...2 • Tempo... ♩=120
- Balance (Bass)...Max • C key...ON
- Start/Stop...Start

⑳ Drums

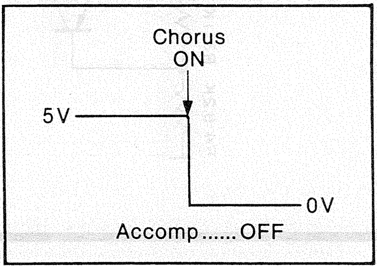


- Rhythm ....March
- Balance (Drums).................Max
- Tempo... ♩=120 • Start/Stop...Start

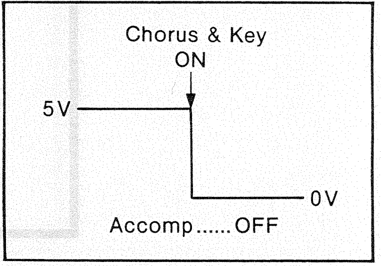
㉑ Gate Control (Q7)



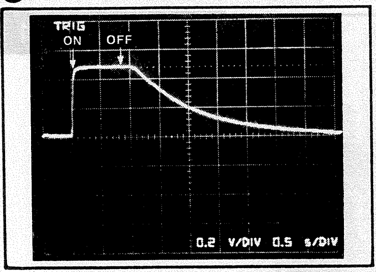
㉒ Gate Control (Q8)



㉓ Gate Control (Q9, Q10)

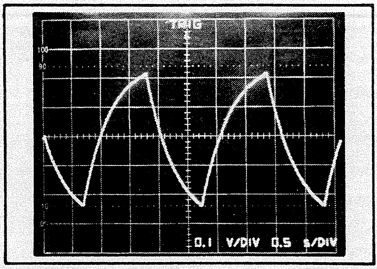


㉔

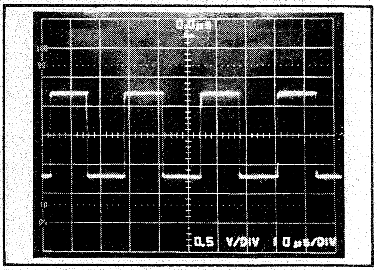


- Power..................................ON → OFF

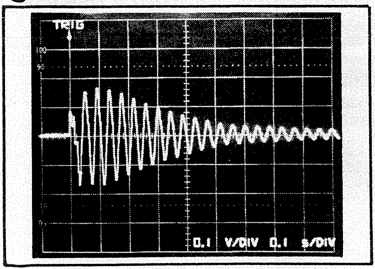
㉕



㉖

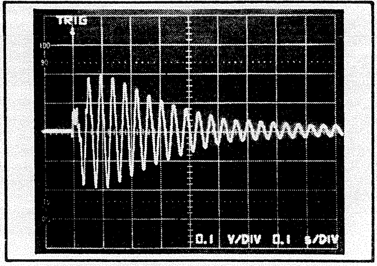


㉗



- Right Tone...........................Piano I
- Balance (Right)...Max • Key...C_{52}
- Chorus...OFF • Main Vol....Max

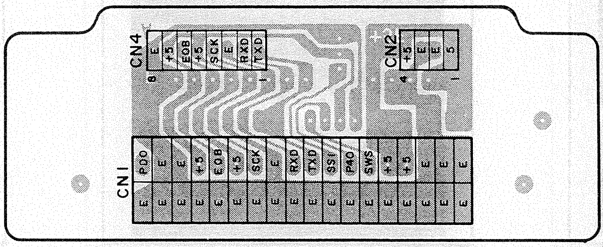
㉘



- Right Tone...........................Piano I
- Balance (Right)...Max • Key...C_{52}
- Chorus...OFF • Main Vol....Max

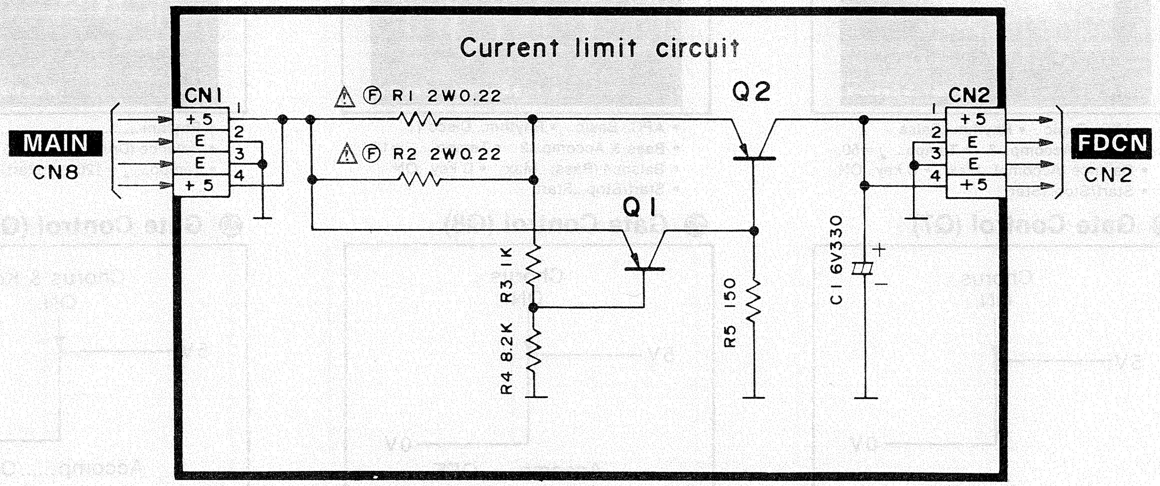
FDCN FD CONNECTOR CIRCUIT BOARD

SXPG141921

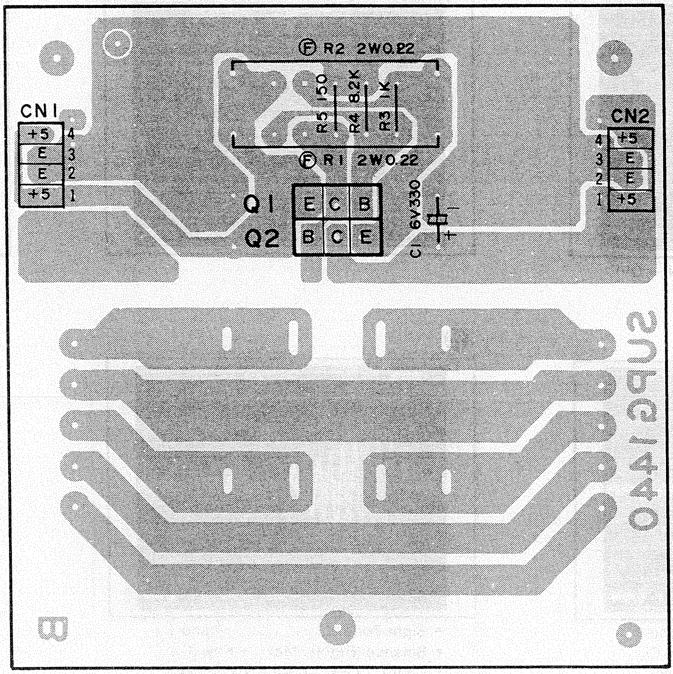

CN4
E
+5
EOB
+5
SCK
E
RXD
TXD
8
1
CN2
+5
E
E
S
4
1
CN1
PQ0
E
E
+5
EOB
+5
SCK
E
RXD
TXD
SSI
P40
SWS
+5
+5
E
E
E

CL & F CURRENT LIMIT CIRCUIT

- **CL & F** circuit is applied only in U.S.A.


Current limit circuit
MAIN
CN8
CN1
+5
E
E
+5
1
2
3
4
⚠ Ⓕ R1 2W0.22
⚠ Ⓕ R2 2W0.22
Q2
Q1
R3 1K
R4 8.2K
R5 150
C1 6V330
CN2
1
2
3
4
+5
E
E
+5
FDCN
CN2

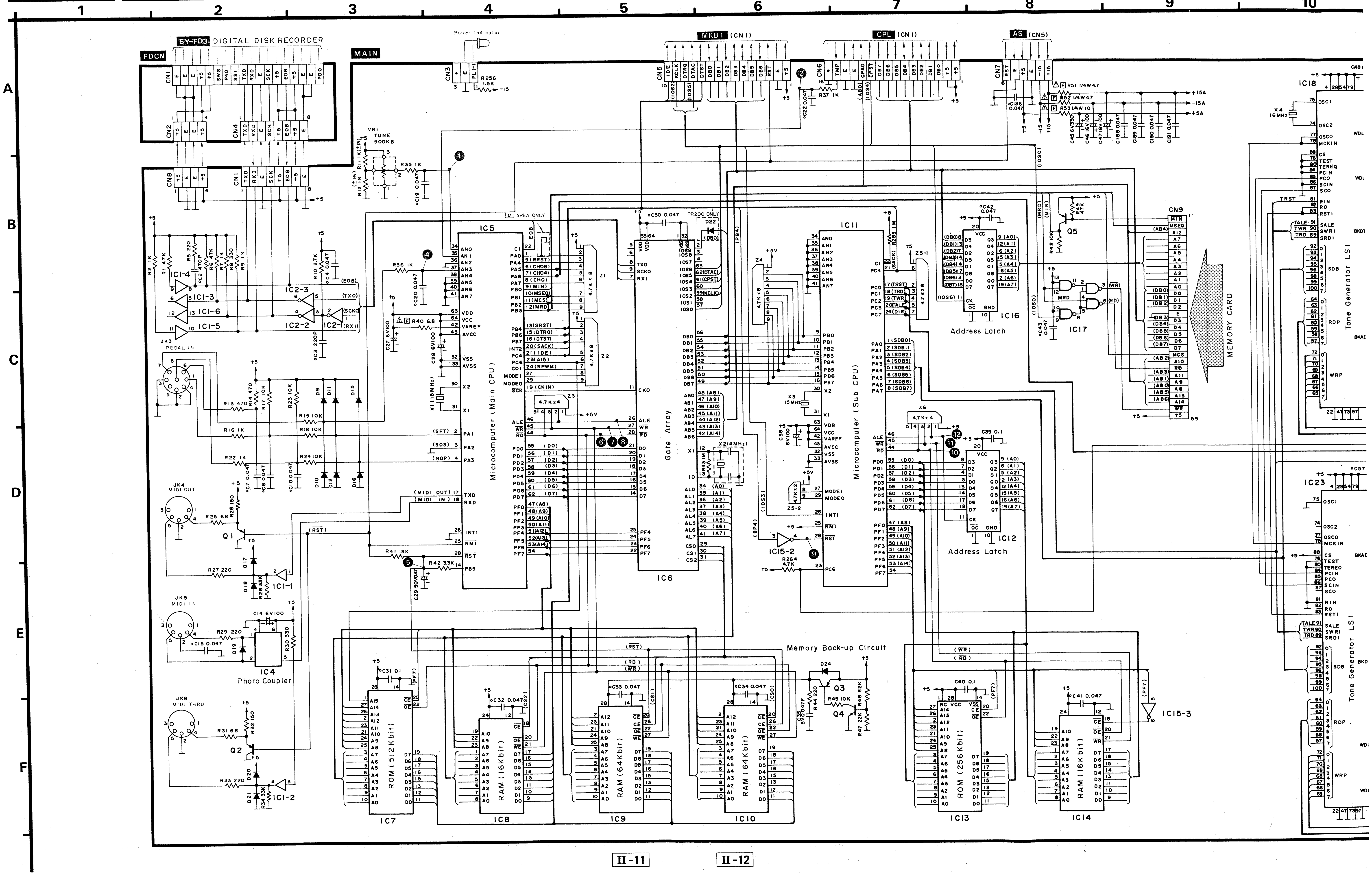
SXPG144011

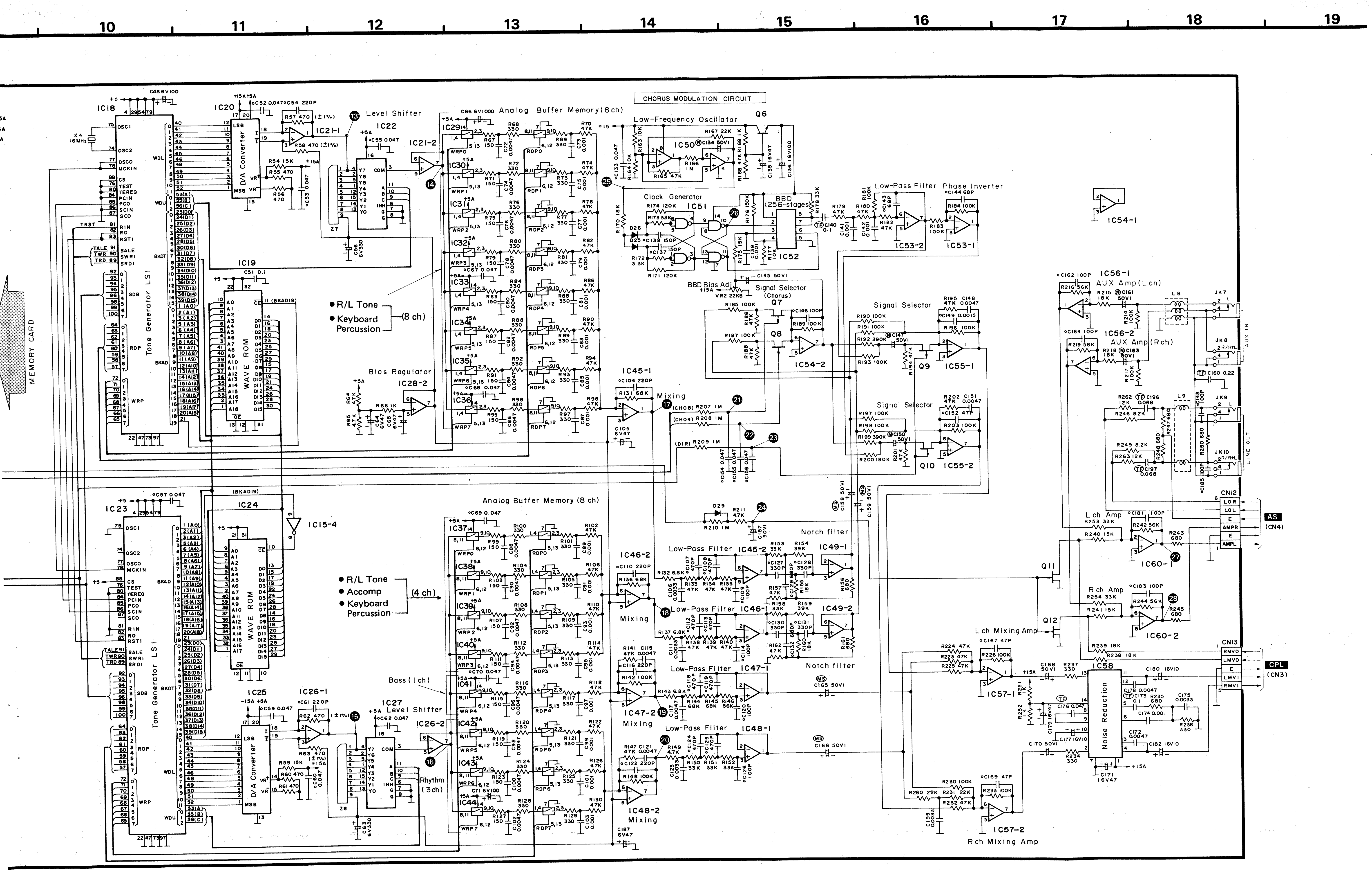

Ⓕ R2 2W0.22
R5 150
R4 8.2K
R3 1K
Ⓕ R1 2W0.22
CN1
+5
E
E
+5
4
3
2
1
CN2
+5
E
E
+5
Q1
Q2
E C B
B C E
C1 6V330
SUPG1440

NOTE:
- TRANSISTORS
  Q1, 2: 2SB941P

MAIN **FDCN**

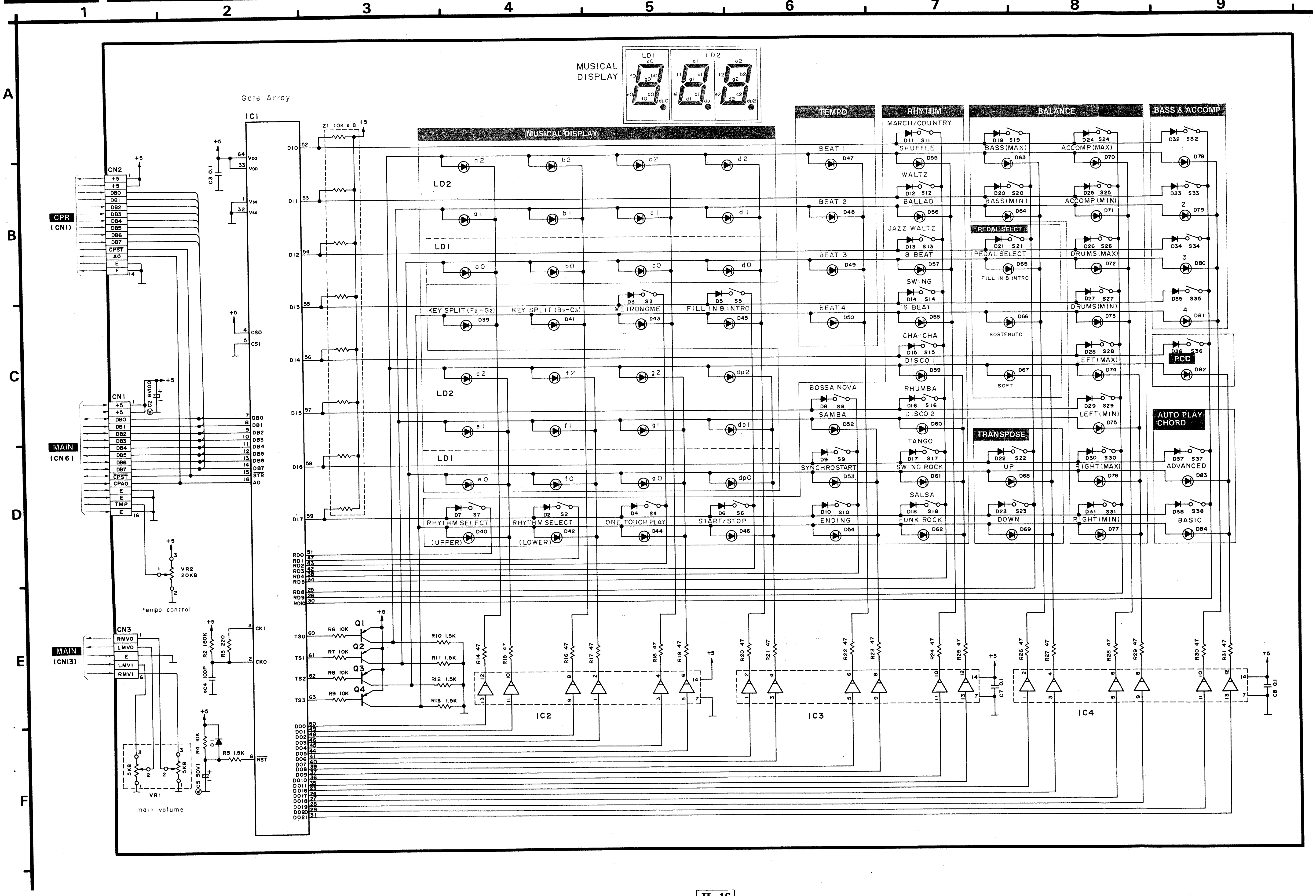
MAIN, FD CONNECTOR CIRCUIT DIAGRAM


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
SY-FD3 DIGITAL DISK RECORDER
FDCN
MAIN
CN1
CN2
CN4
CN8
Power Indicator
CN3
R256 1.5K
VR1 TUNE 500KB
R35 1K
C19 0.047
MKB1 (CN1)
CN5
CPL (CN1)
CN6
R37 1K
AS (CN5)
CN7
R51 1/4W4.7
R52 1/4W4.7
R53 1/4W10
+15A
-15A
+5A
IC18
X4 16MHz
IC1-4
IC1-3
IC1-6
IC1-5
IC2-3
IC2-2
IC2-1
JK3 PEDAL IN
M AREA ONLY
IC5
Microcomputer (Main CPU)
X1 (15MHz)
PR200 ONLY
D22
C30 0.047
IC6
Gate Array
X2 (4MHz)
Z1
Z2
Z3
Z4
Z5-1
Z5-2
Z6
IC11
Microcomputer (Sub CPU)
X3 15MHz
IC16
Address Latch
IC12
Address Latch
Q5
IC17
CN9
MEMORY CARD
JK4 MIDI OUT
Q1
IC1-1
JK5 MIDI IN
IC4
Photo Coupler
JK6 MIDI THRU
Q2
IC1-2
IC15-2
Memory Back-up Circuit
D24
Q3
Q4
IC15-3
IC7
ROM (512Kbit)
IC8
RAM (16Kbit)
IC9
RAM (64Kbit)
IC10
RAM (64Kbit)
IC13
ROM (256Kbit)
IC14
RAM (16Kbit)
IC23
Tone Generator LSI
Tone Generator LSI
SDB
RDP
WRP

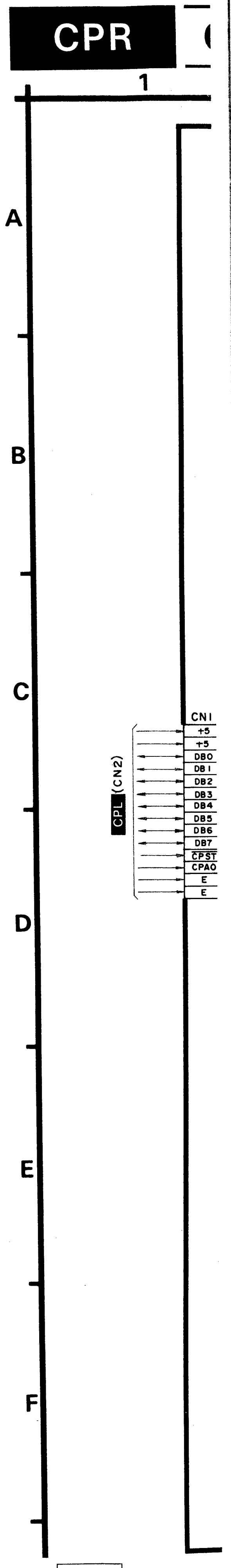

10
11
12
13
14
15
16
17
18
19
MEMORY CARD
IC18
Tone Generator LSI
X4 16MHz
IC20
D/A Converter
IC21-1
Level Shifter
IC22
IC21-2
IC19
WAVE ROM
(BKAD19)
Z7
Bias Regulator
IC28-2
● R/L Tone
● Keyboard Percussion
(8 ch)
Analog Buffer Memory (8 ch)
IC29
IC30
IC31
IC32
IC33
IC34
IC35
IC36
CHORUS MODULATION CIRCUIT
Low-Frequency Oscillator
Q6
IC50
Clock Generator
IC51
BBD (256-stages)
IC52
BBD Bias Adj
VR2 22KB
Low-Pass Filter
Phase Inverter
IC53-2
IC53-1
IC54-1
Signal Selector (Chorus)
Q7
Q8
IC54-2
Signal Selector
IC55-1
Q9
Signal Selector
IC55-2
Q10
IC45-1
Mixing
(CH08) R207 1M
(CH04) R208 1M
(DIR) R209 1M
IC56-1
AUX Amp (Lch)
IC56-2
AUX Amp (Rch)
L8
JK7
JK8
AUX IN
L9
JK9
JK10
LINE OUT
CN12
LOR
LOL
E
AMPR
E
AMPL
AS
(CN4)
IC23
Tone Generator LSI
IC24
WAVE ROM
IC15-4
IC25
D/A Converter
IC26-1
IC27
Level Shifter
IC26-2
Z8
Rhythm (3ch)
Bass (1 ch)
● R/L Tone
● Accomp
● Keyboard Percussion
(4 ch)
Analog Buffer Memory (8 ch)
IC37
IC38
IC39
IC40
IC41
IC42
IC43
IC44
IC46-2
Mixing
Low-Pass Filter
IC45-2
Notch filter
IC49-1
Low-Pass Filter
IC46-1
IC49-2
Notch filter
IC47-2
Mixing
Low-Pass Filter
IC47-1
IC48-2
Mixing
Low-Pass Filter
IC48-1
Lch Amp
IC60-1
Rch Amp
IC60-2
Q11
Q12
Lch Mixing Amp
IC57-1
IC58
Noise Reduction
IC57-2
Rch Mixing Amp
CN13
RMVO
LMVO
E
LMVI
RMVI
CPL
(CN3)

CPL

CONTROL PANEL LEFT CIRCUIT DIAGRAM

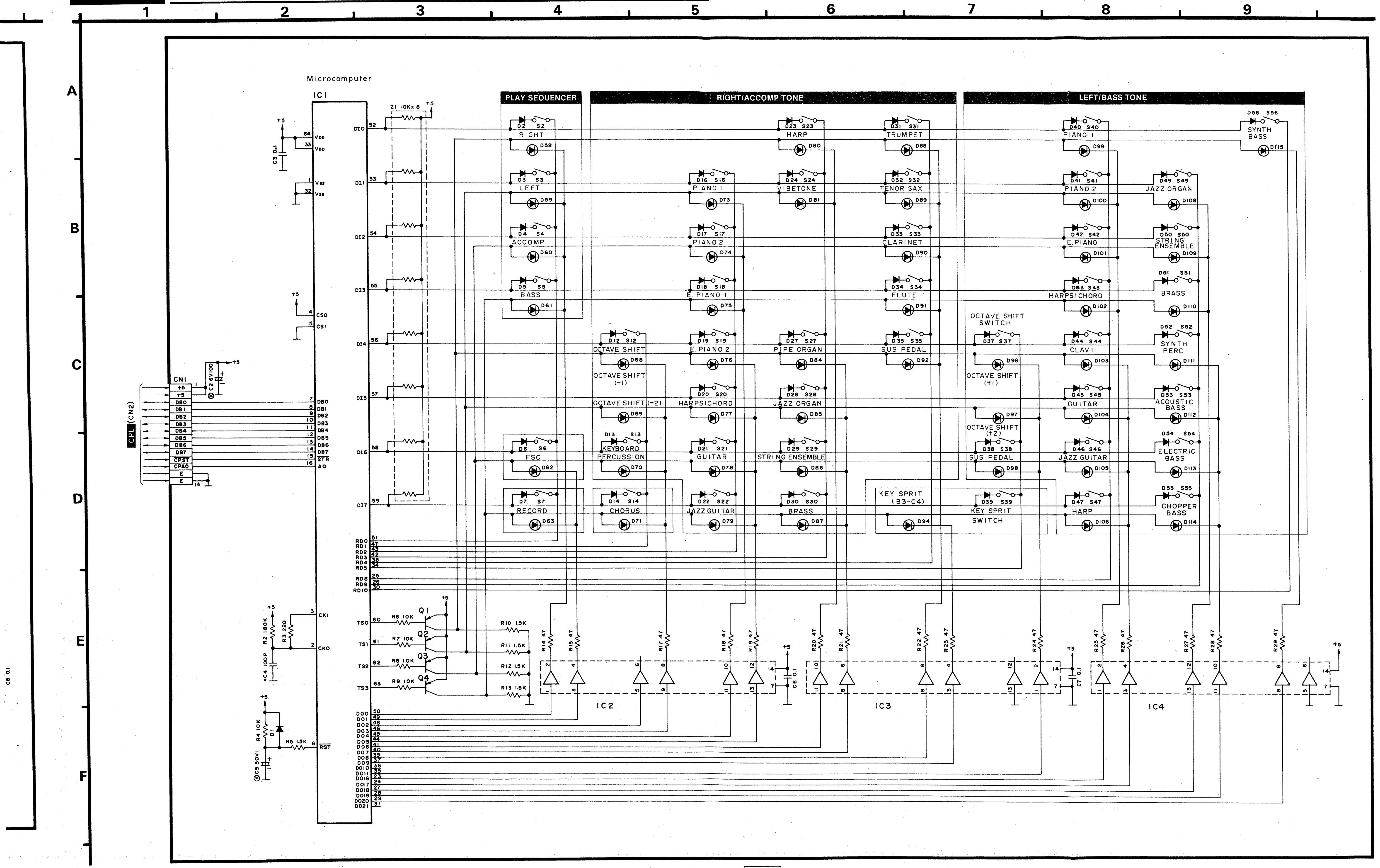


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
Gate Array
IC1
MUSICAL DISPLAY
LD1
LD2
MUSICAL DISPLAY
TEMPO
RHYTHM
BALANCE
BASS & ACCOMP
CPR (CN1)
MAIN (CN6)
MAIN (CN13)
CN1
CN2
CN3
Z1 10K x 8
KEY SPLIT (F2-G2)
KEY SPLIT (B2-C3)
METRONOME
FILL IN & INTRO
RHYTHM SELECT (UPPER)
RHYTHM SELECT (LOWER)
ONE TOUCH PLAY
START/STOP
BEAT 1
BEAT 2
BEAT 3
BEAT 4
BOSSA NOVA
SAMBA
SYNCHRO START
ENDING
MARCH/COUNTRY
SHUFFLE
WALTZ
BALLAD
JAZZ WALTZ
8 BEAT
SWING
16 BEAT
CHA-CHA
DISCO 1
RHUMBA
DISCO 2
TANGO
SWING ROCK
SALSA
FUNK ROCK
BASS (MAX)
BASS (MIN)
PEDAL SELECT
FILL IN & INTRO
SOSTENUTO
SOFT
TRANSPOSE
UP
DOWN
ACCOMP (MAX)
ACCOMP (MIN)
DRUMS (MAX)
DRUMS (MIN)
LEFT (MAX)
LEFT (MIN)
RIGHT (MAX)
RIGHT (MIN)
1
2
3
4
PCC
AUTO PLAY CHORD
ADVANCED
BASIC
VR2 20K B
tempo control
VR1
main volume
Q1
Q2
Q3
Q4
IC2
IC3
IC4
RMVO
LMVO
LMVI
RMVI
TMP
CPST
CPAO
STR
RST
CK I
CKO

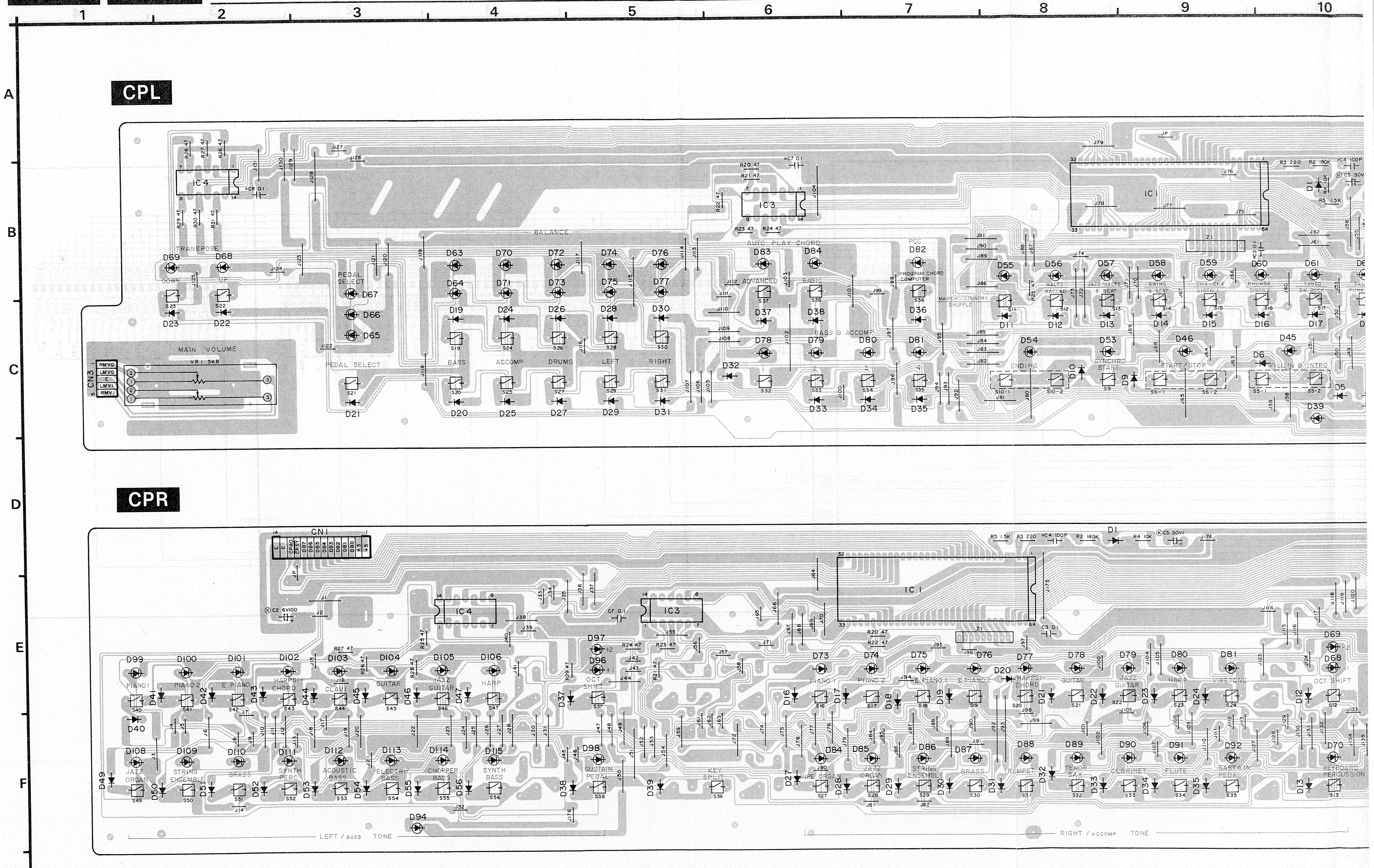


CPR
1
A
B
C
D
E
F
CPL (CN2)
CN1

CPR CONTROL PANEL RIGHT CIRCUIT DIAGRAM


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
Microcomputer
IC1
VDD
VSS
CS0
CS1
DB0
DB1
DB2
DB3
DB4
DB5
DB6
DB7
STR
A0
CKI
CKO
RST
DI0
DI1
DI2
DI3
DI4
DI5
DI6
DI7
RD0
RD1
RD2
RD3
RD4
RD5
RD8
RD9
RD10
TS0
TS1
TS2
TS3
DO0
DO1
DO2
DO3
DO4
DO5
DO6
DO7
DO8
DO9
DO10
DO11
DO16
DO17
DO18
DO19
DO20
DO21
Z1 10K×8
+5
C3 0.1
C2 6V100
CN1
CPL (CN2)
CPST
CPA0
E
R2 180K
R3 220
C4 100P
R4 10K
D1
R5 1.5K
C5 50V1
Q1
Q2
Q3
Q4
R6 10K
R7 10K
R8 10K
R9 10K
R10 1.5K
R11 1.5K
R12 1.5K
R13 1.5K
PLAY SEQUENCER
RIGHT/ACCOMP TONE
LEFT/BASS TONE
D2 S2 RIGHT D58
D3 S3 LEFT D59
D4 S4 ACCOMP D60
D5 S5 BASS D61
D6 S6 FSC D62
D7 S7 RECORD D63
D12 S12 OCTAVE SHIFT
OCTAVE SHIFT (-1) D68
OCTAVE SHIFT (-2) D69
D13 S13 KEYBOARD PERCUSSION D70
D14 S14 CHORUS D71
D16 S16 PIANO 1 D73
D17 S17 PIANO 2 D74
D18 S18 E. PIANO 1 D75
D19 S19 E. PIANO 2 D76
D20 S20 HARPSICHORD D77
D21 S21 GUITAR D78
D22 S22 JAZZ GUITAR D79
D23 S23 HARP D80
D24 S24 VIBETONE D81
D27 S27 PIPE ORGAN D84
D28 S28 JAZZ ORGAN D85
D29 S29 STRING ENSEMBLE D86
D30 S30 BRASS D87
D31 S31 TRUMPET D88
D32 S32 TENOR SAX D89
D33 S33 CLARINET D90
D34 S34 FLUTE D91
D35 S35 SUS PEDAL D92
KEY SPRIT (B3-C4) D94
OCTAVE SHIFT SWITCH
D37 S37
OCTAVE SHIFT (+1) D96
OCTAVE SHIFT (+2) D97
D38 S38 SUS PEDAL D98
D39 S39 KEY SPRIT SWITCH
D40 S40 PIANO 1 D99
D41 S41 PIANO 2 D100
D42 S42 E. PIANO D101
D43 S43 HARPSICHORD D102
D44 S44 CLAVI D103
D45 S45 GUITAR D104
D46 S46 JAZZ GUITAR D105
D47 S47 HARP D106
D49 S49 JAZZ ORGAN D108
D50 S50 STRING ENSEMBLE D109
D51 S51 BRASS D110
D52 S52 SYNTH PERC D111
D53 S53 ACOUSTIC BASS D112
D54 S54 ELECTRIC BASS D113
D55 S55 CHOPPER BASS D114
D56 S56 SYNTH BASS D115
R14 47
R15 47
R17 47
R18 47
R19 47
R20 47
R21 47
R22 47
R23 47
R24 47
R25 47
R26 47
R27 47
R28 47
R29 47
C6 0.1
C7 0.1
C8 0.1
IC2
IC3
IC4

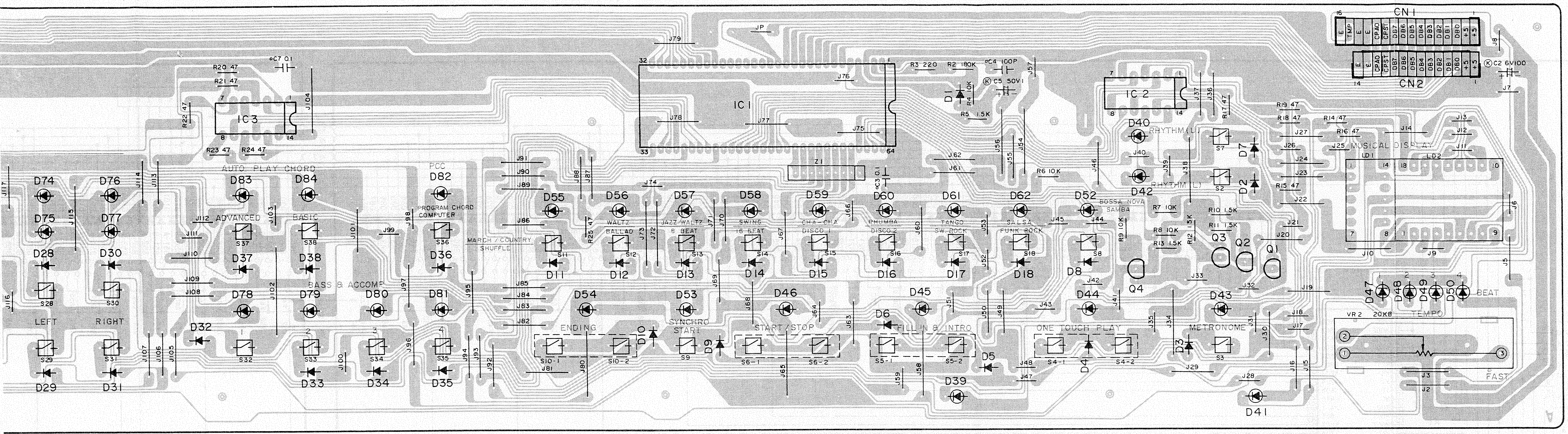
CPL **CPR** CONTROL PANEL LEFT, RIGHT CIRCUIT BOARD


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
CPL
IC4
IC3
IC1
TRANSPOSE
DOWN
UP
S23
S22
D69
D68
D23
D22
MAIN VOLUME
VR1 5K8
CN3
RMVO
LMVO
E
LMVI
RMVI
PEDAL SELECT
D67
D66
D65
S21
D21
BALANCE
BASS
ACCOMP
DRUMS
LEFT
RIGHT
AUTO PLAY CHORD
ADVANCED
BASIC
BASS & ACCOMP
PCC
PROGRAM CHORD COMPUTER
MARCH / COUNTRY SHUFFLE
WALTZ BALLAD
JAZZ WALTZ 6 BEAT
SWING 16 BEAT
CHA-CHA DISCO 1
RHUMBA DISCO 2
TANGO SW. ROCK
ENDING
SYNCHRO START
START / STOP
FILL IN & INTRO
CPR
CN1
C2 6V100
IC4
IC3
IC1
D99
D100
D101
D102
D103
D104
D105
D106
PIANO 1
PIANO 2
E. PIANO
HARPSI-CHORD
CLAVI
GUITAR
JAZZ GUITAR
HARP
D97
D96
OCT SHIFT
D108
D109
D110
D111
D112
D113
D114
D115
JAZZ ORGAN
STRING ENSEMBLE
BRASS
SYNTH PERC
ACOUSTIC BASS
ELECTRIC BASS
CHOPPER BASS
SYNTH BASS
D98
SUSTAIN PEDAL
KEY SPLIT
D94
LEFT / BASS TONE
D73
D74
D75
D76
D77
D78
D79
D80
D81
PIANO 1
PIANO 2
E. PIANO 1
E. PIANO 2
HARPSI-CHORD
GUITAR
JAZZ GUITAR
HARP
VIBETONE
OCT SHIFT
D84
D85
D86
D87
D88
D89
D90
D91
D92
D70
PIPE ORGAN
JAZZ ORGAN
STRING ENSEMBLE
BRASS
TRUMPET
TENOR SAX
CLARINET
FLUTE
SUSTAIN PEDAL
KEYBOARD PERCUSSION
RIGHT / ACCOMP TONE

CIRCUIT BOARD

5 6 7 8 9 10 11 12 13 14

SXPG142111A


CN1
CN2
IC1
IC2
IC3
AUTO PLAY CHORD
ADVANCED
BASIC
PCC
PROGRAM CHORD COMPUTER
MARCH / COUNTRY SHUFFLE
WALTZ BALLAD
JAZZ WALTZ 8 BEAT
SWING 16 BEAT
CHA-CHA DISCO 1
RHUMBA DISCO 2
TANGO SW ROCK
SALSA FUNK ROCK
BOSSA NOVA SAMBA
RHYTHM (L)
MUSICAL DISPLAY
LD1
LD2
BASS & ACCOMP
LEFT
RIGHT
ENDING
SYNCHRO START
START / STOP
FILL IN & INTRO
ONE TOUCH PLAY
METRONOME
BEAT
VR2 20KB
TEMPO
FAST

NOTES:

- IC'S

IC1:	SVIGM603A121
IC2~4:	SVIGM74LS07

- TRANSISTORS

Q1~4:	2SA830SB

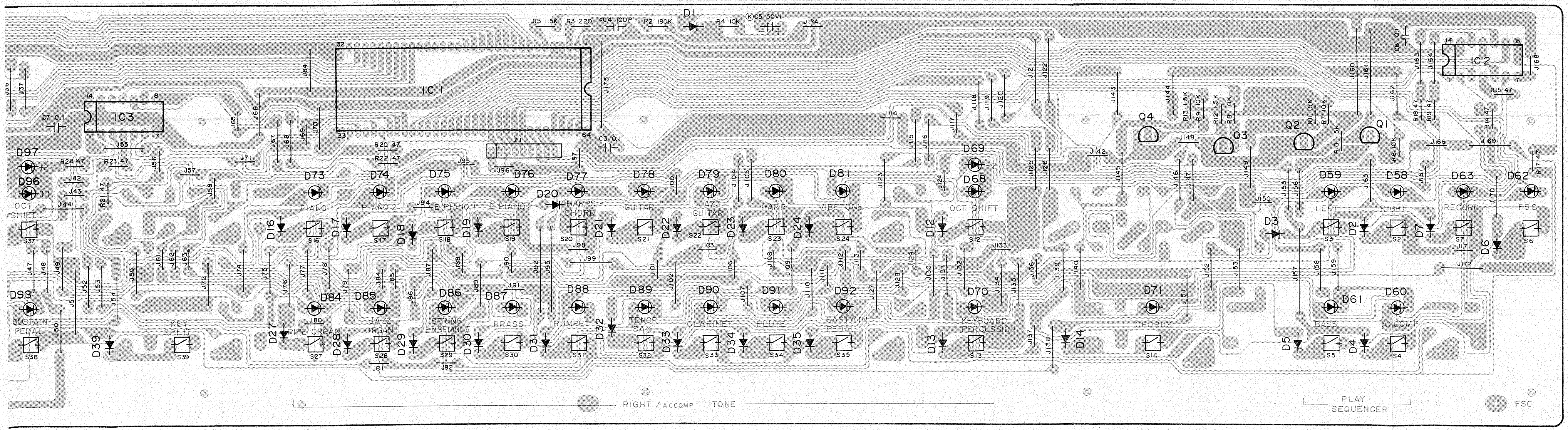
- DIODES

D1~38:	MA165TA5
D39~47, 52~81, 83, 84:	LN282R
D48~50, 82:	LN382G

- DISPLAYS

LD1:	LN514RA
LD2:	LN524RA

SXPG142121B


IC1
IC2
IC3
OCT SHIFT
PIANO 1
PIANO 2
E PIANO 1
E PIANO 2
HARPSI-CHORD
GUITAR
JAZZ GUITAR
HARP
VIBETONE
OCT SHIFT
LEFT
RIGHT
RECORD
FSC
SUSTAIN PEDAL
KEY SPLIT
PIPE ORGAN
JAZZ ORGAN
STRING ENSEMBLE
BRASS
TRUMPET
TENOR SAX
CLARINET
FLUTE
SUSTAIN PEDAL
KEYBOARD PERCUSSION
CHORUS
BASS
ACCOMP
RIGHT / ACCOMP TONE
PLAY SEQUENCER
FSC

NOTES:

- IC'S

IC1:	SVIGM603A121
IC2~4:	SVIGM74LS07

- TRANSISTORS

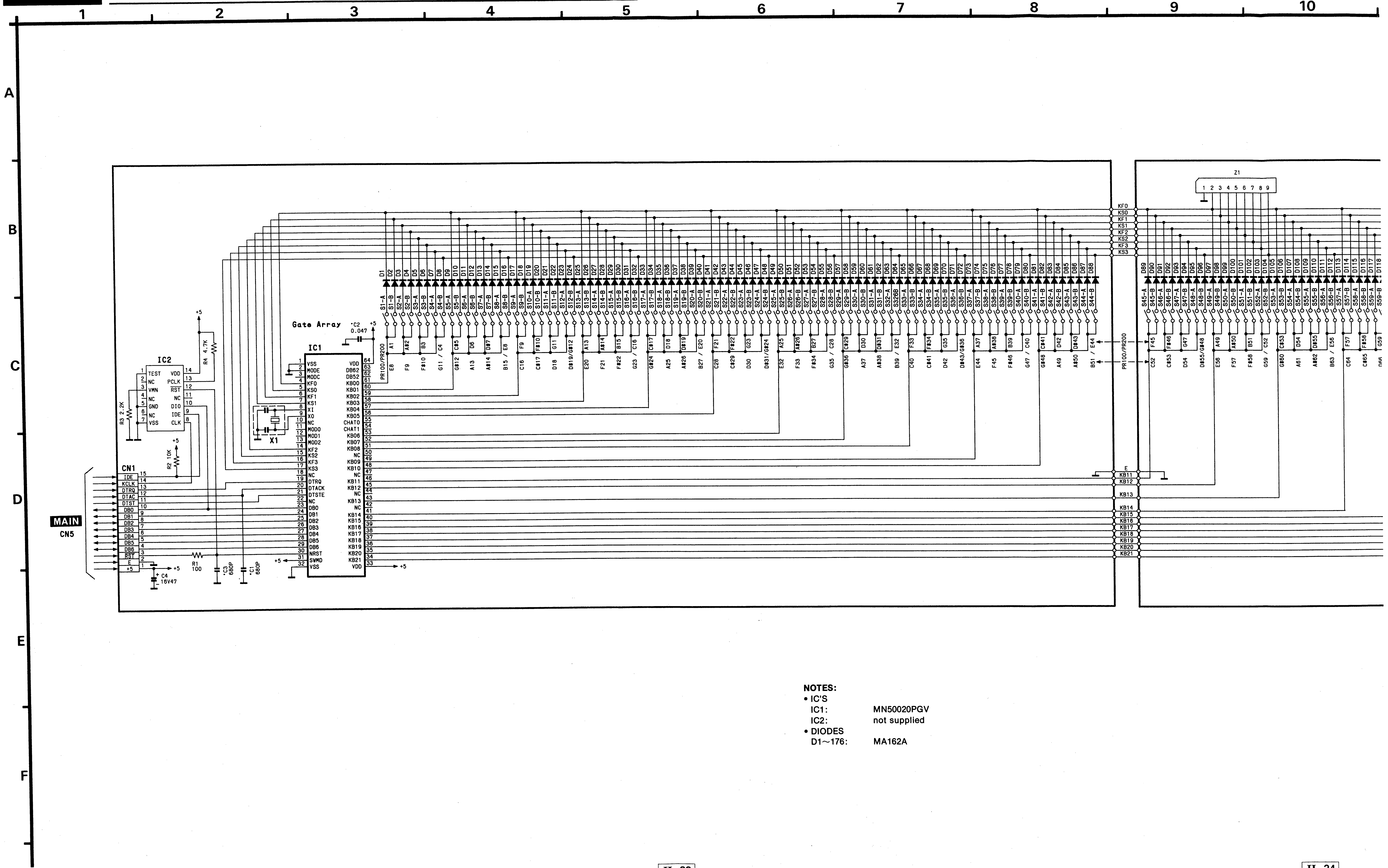
Q1~4:	2SA830SB

- DIODES

D1~7, 12~14, 16~24, 27~35:	MA165TA5
D37~47, 49~56:	
D58~63:	LN382G
D68~71, 73~81, 84~92, 94:	LN282R
D96~106, 108~115:	

MKB

MANUAL KEYBOARD CIRCUIT DIAGRAM

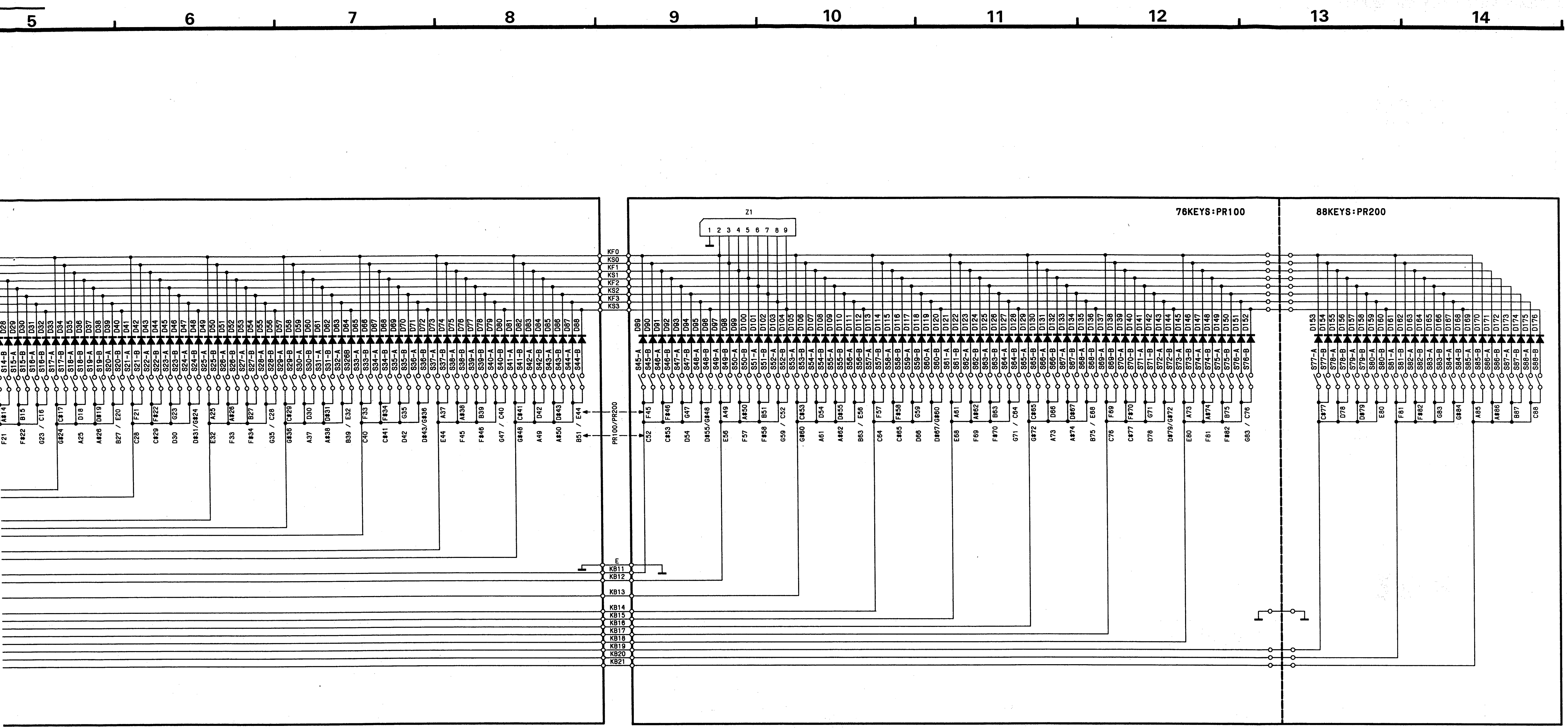

1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
IC1
IC2
Gate Array
CN1
MAIN
CN5
X1
Z1
R1 100
R2 10K
R3 2.2K
R4 4.7K
C1 680P
C2 0.047
C3 680P
C4 16V47
+5
KF0
KS0
KF1
KS1
KF2
KS2
KF3
KS3
KB11
KB12
KB13
KB14
KB15
KB16
KB17
KB18
KB19
KB20
KB21
PR100/PR200

NOTES:
- IC'S

IC1:	MN50020PGV
IC2:	not supplied

- DIODES

D1～176:	MA162A


5
6
7
8
9
10
11
12
13
14
76KEYS:PR100
88KEYS:PR200
Z1
1 2 3 4 5 6 7 8 9
KF0
KS0
KF1
KS1
KF2
KS2
KF3
KS3
PR100/PR200
E
KB11
KB12
KB13
KB14
KB15
KB16
KB17
KB18
KB19
KB20
KB21

NOTES:
- IC'S
  IC1: MN50020PGV
  IC2: not supplied
- DIODES
  D1~176: MA162A

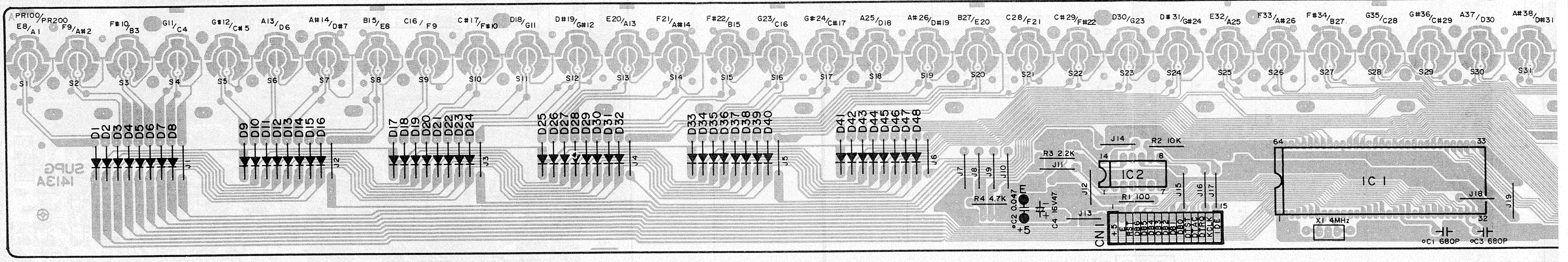
MKB MANUAL KEYBOARD CIRCUIT BOARD

■ The repair of the keyboard PCB and key switches.

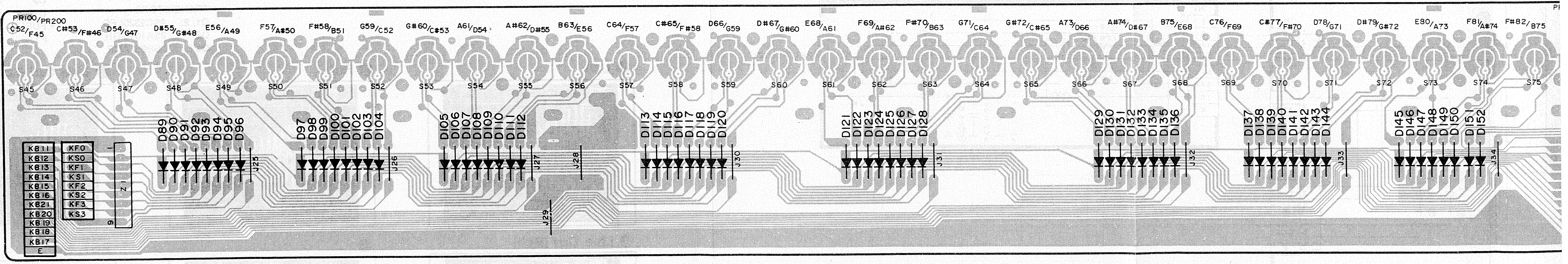
The keyboards on the SX-PR100/PR200 employ an operating system which is unique to each unit. This system insures touch response accuracy.

To maintain that accuracy, please note the following points when repairing the keyboard:

1. When repairing the Rubber Contact Switches:
   SSPG6003A (6 continuous)
   SSPG7003A (7 continuous)
   A. It is necessary to replace all of these switches if one of them becomes defective. (The replacement parts are selected for accuracy of touch response.)
   B. Cut Jumper 15 on the Manual Keyboard P.C.B. to disconnect the Data ROM. (It is not necessary with the higher tolerance switches.)
2. If the Manual Keyboard P.C.B. needs to be replaced, due to physical damage. It is necessary to replace both keyboard P.C.B's at the same time.
3. The Data ROM (IC2) is matched to Rubber Contact Switches/P.C.B. combination and is not available separately.
   If this part should become defective cut jumper 15 or remove the part. To insure touch response accuracy it may be necessary to replace the Rubber Contact Switches. (See Step 1)
4. If the Manual Keyboard microprocessor (IC1) is defective, it can replaced with a unit from parts. No special considerations are necessary.


PR100/PR200
E8/A1
F9/A#2
F#10/B3
G11/C4
G#12/C#5
A13/D6
A#14/D#7
B15/E8
C16/F9
C#17/F#10
D18/G11
D#19/G#12
E20/A13
F21/A#14
F#22/B15
G23/C16
G#24/C#17
A25/D18
A#26/D#19
B27/E20
C28/F21
C#29/F#22
D30/G23
D#31/G#24
E32/A25
F33/A#26
F#34/B27
G35/C28
G#36/C#29
A37/D30
A#38/D#31
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
S13
S14
S15
S16
S17
S18
S19
S20
S21
S22
S23
S24
S25
S26
S27
S28
S29
S30
S31
D1
D2
D3
D4
D5
D6
D7
D8
J1
D9
D10
D11
D12
D13
D14
D15
D16
J2
D17
D18
D19
D20
D21
D22
D23
D24
J3
D25
D26
D27
D28
D29
D30
D31
D32
J4
D33
D34
D35
D36
D37
D38
D39
D40
J5
D41
D42
D43
D44
D45
D46
D47
D48
J6
J7
J8
J9
J10
R4 4.7K
C2 0.047
+5
C4 16V47
R3 2.2K
J11
J12
J13
J14
IC2
14
8
1
7
R1 100
R2 10K
J15
J16
J17
CN1
+5
E
RST
DB6
DB5
DB4
DB3
DB2
DB1
DB0
DTST
DTAC
DTRQ
KCLK
IDE
15
IC1
64
33
1
32
J18
J19
X1 4MHz
C1 680P
C3 680P
SUPG
1413A

• SX-PR100 **SXPG14132**


PR100/PR200
C52/F45
C#53/F#46
D54/G47
D#55/G#48
E56/A49
F57/A#50
F#58/B51
G59/C52
G#60/C#53
A61/D54
A#62/D#55
B63/E56
C64/F57
C#65/F#58
D66/G59
D#67/G#60
E68/A61
F69/A#62
F#70/B63
G71/C64
G#72/C#65
A73/D66
A#74/D#67
B75/E68
C76/F69
C#77/F#70
D78/G71
D#79/G#72
E80/A73
F81/A#74
F#82/B75
S45
S46
S47
S48
S49
S50
S51
S52
S53
S54
S55
S56
S57
S58
S59
S60
S61
S62
S63
S64
S65
S66
S67
S68
S69
S70
S71
S72
S73
S74
S75
D89
D90
D91
D92
D93
D94
D95
D96
J25
D97
D98
D99
D100
D101
D102
D103
D104
J26
D105
D106
D107
D108
D109
D110
D111
D112
J27
J28
J29
D113
D114
D115
D116
D117
D118
D119
D120
J30
D121
D122
D123
D124
D125
D126
D127
D128
J31
D129
D130
D131
D132
D133
D134
D135
D136
J32
D137
D138
D139
D140
D141
D142
D143
D144
J33
D145
D146
D147
D148
D149
D150
D151
D152
J34
KB11
KB12
KB13
KB14
KB15
KB16
KB21
KB20
KB19
KB18
KB17
E
KF0
KS0
KF1
KS1
KF2
KS2
KF3
KS3
Z1
1
9

NOTES:
- IC'S

IC1:	MN50020PGV
IC2:	not supplied

- DIODES

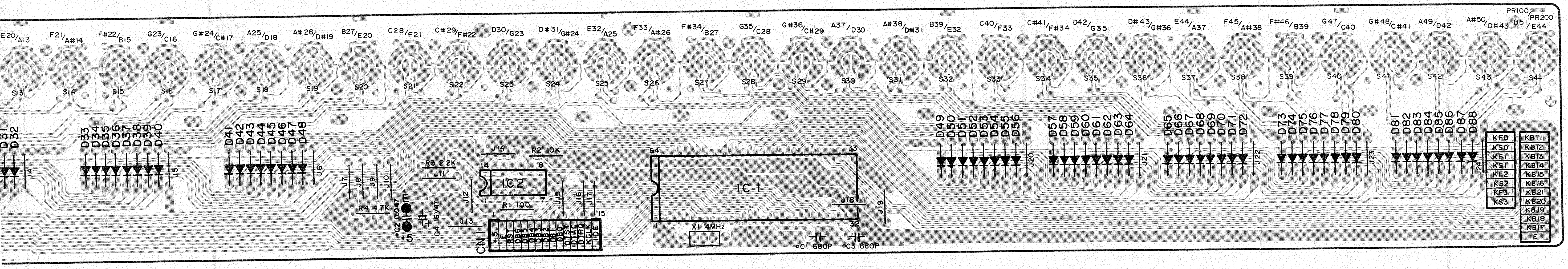
D1~176:	MA162A

es touch

elected

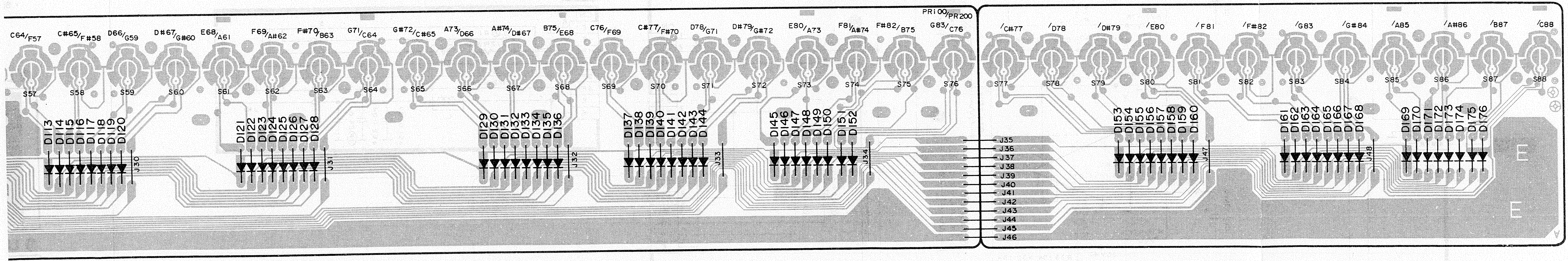
higher

2. If the Manual Keyboard P.C.B. needs to be replaced, due to physical damage, it is necessary to replace both keyboard P.C.B.'s at the same time.
3. The Data ROM (IC2) is matched to Rubber Contact Switches/P.C.B. combination and is not available separately. If this part should become defective cut jumper 15 or remove the part. To insure touch response accuracy it may be necessary to replace the Rubber Contact Switches. (See Step 1)
4. If the Manual Keyboard microprocessor (IC1) is defective, it can replaced with a unit from parts. No special considerations are necessary.


IC1
IC2
CN1
X1 4MHz
C1 680P
C3 680P
R1 100
R2 10K
R3 2.2K
R4 4.7K
C2 0.047
C4 16V47
PR100/PR200
KF0
KS0
KF1
KS1
KF2
KS2
KF3
KS3
KB11
KB12
KB13
KB14
KB15
KB16
KB21
KB20
KB19
KB18
KB17
E

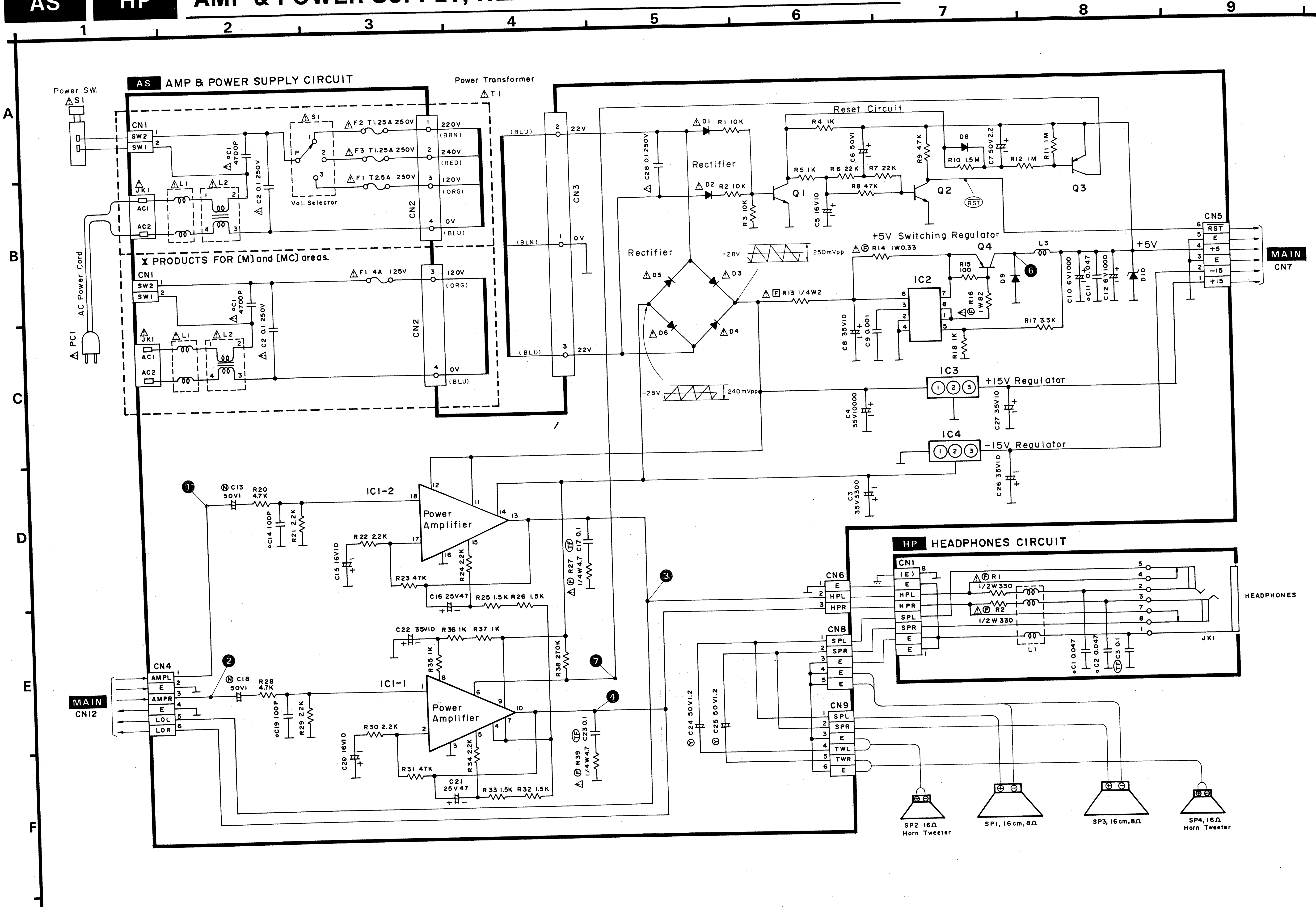
• SX-PR100 **SXPG141321**

• SX-PR200 **SXPG141311**


PR100/PR200
J35
J36
J37
J38
J39
J40
J41
J42
J43
J44
J45
J46
E

NOTES:
- IC'S
  - IC1: MN50020PGV
  - IC2: not supplied
- DIODES
  - D1～176: MA162A

AS HP AMP & POWER SUPPLY, HEADPHONES CIRCUIT DIAGRAM


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
AS AMP & POWER SUPPLY CIRCUIT
Power SW.
⚠S1
Power Transformer
⚠T1
CN1
SW2
SW1
⚠JK1
AC1
AC2
⚠L1
⚠L2
⚠C1 4700P
⚠C2 0.1 250V
⚠S1
Vol. Selector
⚠F2 T1.25A 250V
⚠F3 T1.25A 250V
⚠F1 T2.5A 250V
CN2
220V (BRN)
240V (RED)
120V (ORG)
0V (BLU)
AC Power Cord
⚠PC1
※ PRODUCTS FOR (M) and (MC) areas.
⚠F1 4A 125V
120V (ORG)
0V (BLU)
(BLU)
(BLK)
(BLU)
CN3
22V
0V
22V
⚠C28 0.1 250V
Rectifier
⚠D1 R1 10K
⚠D2 R2 10K
R3 10K
Rectifier
⚠D5
⚠D3
⚠D6
⚠D4
+28V
250mVpp
-28V
240mVpp
Reset Circuit
R4 1K
C6 50V1
R5 1K
R6 22K
R7 22K
R8 47K
R9 4.7K
D8
C7 50V2.2
R10 1.5M
R12 1M
R11 1M
Q1
Q2
Q3
C5 16V10
RST
+5V Switching Regulator
⚠F R14 1W0.33
Q4
L3
R15 100
⑥
D9
⚠F R13 1/4W2
IC2
R16 1W82
⚠F
R17 3.3K
R18 1K
C8 35V10
C9 0.001
C10 6V1000
C11 0.047
C12 6V1000
D10
+5V
CN5
RST
E
+5
E
-15
+15
MAIN CN7
IC3
+15V Regulator
C4 35V10000
C27 35V10
IC4
-15V Regulator
C26 35V10
C3 35V3300
①
Ⓝ C13 50V1
R20 4.7K
C14 100P
R21 2.2K
IC1-2
Power Amplifier
R22 2.2K
C15 16V10
R23 47K
R24 2.2K
C16 25V47
R25 1.5K
R26 1.5K
⚠F R27 1/4W4.7
TF C17 0.1
③
C22 35V10
R36 1K
R37 1K
R35 1K
R38 270K
⑦
②
Ⓝ C18 50V1
R28 4.7K
C19 100P
R29 2.2K
IC1-1
Power Amplifier
R30 2.2K
C20 16V10
R31 47K
R34 2.2K
C21 25V47
R33 1.5K
R32 1.5K
④
⚠F R39 1/4W4.7
TF C23 0.1
CN4
AMPL
E
AMPR
E
LOL
LOR
MAIN CN12
Y C24 50V1.2
Y C25 50V1.2
CN6
E
HPL
HPR
CN8
SPL
SPR
E
E
E
CN9
SPL
SPR
E
TWL
TWR
E
HP HEADPHONES CIRCUIT
CN1
(E)
HPL
HPR
SPL
SPR
E
E
⚠F R1 1/2W330
⚠F R2 1/2W330
L1
C1 0.047
C2 0.047
TF C3 0.1
HEADPHONES
JK1
SP2 16Ω Horn Tweeter
SP1, 16cm, 8Ω
SP3, 16cm, 8Ω
SP4, 16Ω Horn Tweeter

■ Me
• Rig
• Ch
• Ke
• Ma
• Ba

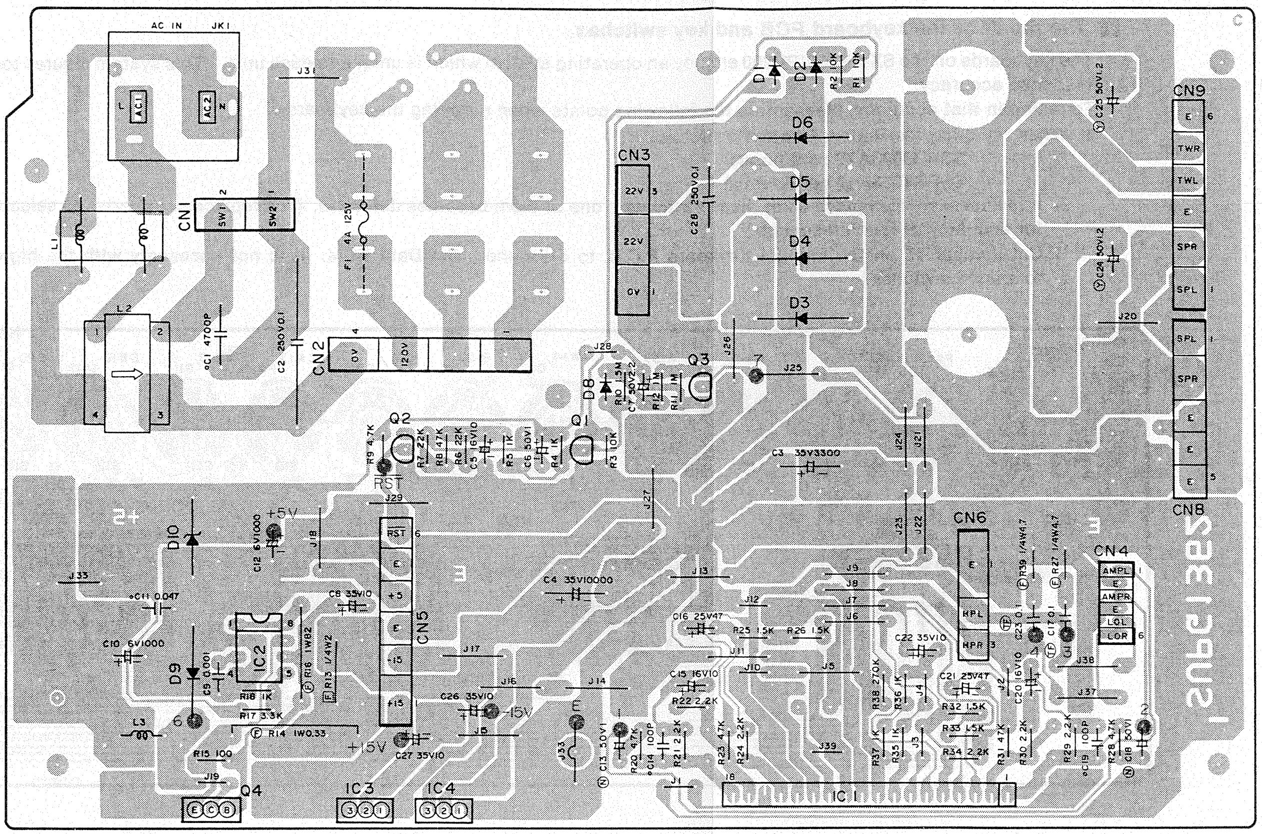
❶ Lo

❹ Li

AS AMP & POWER SUPPLY CIRCUIT BOARD

10 11 12 13 14

• Products for (M) and (MC) areas. **SXPG1362181**


AC IN
JK1
AC1
AC2
L
N
J31
L1
CN1
SW1
SW2
F1 4A 125V
L2
C1 4700P
C2 250V0.1
CN2
0V
120V
CN3
22V
22V
0V
C28 250V0.1
D1
D2
R2 10K
R1 10K
D6
D5
D4
D3
C25 50V1.2
C24 50V1.2
CN9
E
TWR
TWL
E
SPR
SPL
J20
SPL
SPR
E
E
E
CN8
J28
D8
R10 1.5M
C7 50V2.2
R12 1M
R11 1M
Q3
J26
J25
Q2
Q1
R9 4.7K
R7 22K
R8 47K
R6 22K
C5 16V10
R5 1K
C6 50V1
R4 1K
R3 10K
RST
J29
C3 35V3300
J24
J21
J27
J23
J22
CN6
R39 1/4W4.7
R27 1/4W4.7
CN4
AMPL
E
AMPR
E
LOL
LOR
HPL
HPR
+5V
D10
J18
C12 6V1000
J33
C11 0.047
C8 35V10
C4 35V10000
J13
CN5
+5
-15
+15
C10 6V1000
IC2
D9
C9 0.001
R16 1W82
R15 1/4W2
R18 1K
R17 3.3K
R14 1W0.33
J17
J16
J14
C26 35V10
-15V
+15V
C27 35V10
L3
R15 100
J19
Q4
IC3
IC4
J33
C13 50V1
R20 4.7K
C14 100P
R21 2.2K
R23 4.7K
R24 2.2K
C16 25V47
R25 1.5K
R26 1.5K
C15 16V10
R22 2.2K
J12
J11
J10
J9
J8
J7
J6
J5
C22 35V10
C21 25V47
C20 16V10
C23 0.1
C17 0.1
R38 270K
R36 1K
R37 1K
R35 1K
R32 1.5K
R33 1.5K
R34 2.2K
R31 47K
R30 2.2K
R29 2.2K
C19 100P
R28 4.7K
C18 50V1
J38
J37
J39
J1
J3
J4
IC1
E
1
2
3
4
5
6
7

Measuring Conditions

- Right Tone..........................Piano I
- Chorus................................OFF
- Keyboard............................C_{52}
- Main Volume........................Max.
- Balance (Right)...................Max.

NOTES:

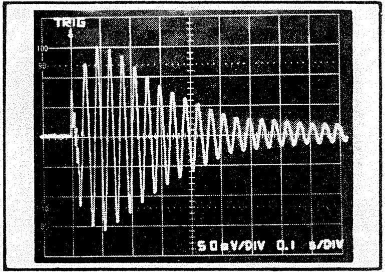
• IC'S
IC1: SVIGS4132M2M
IC2: SVIGM5291P
IC3: SVIGM5F7815
IC4: SVIGM5F7915

• TRANSISTORS
Q1, 2: 2SC2320LFG
Q3: 2SA1015-GR
Q4: 2SB953AQP

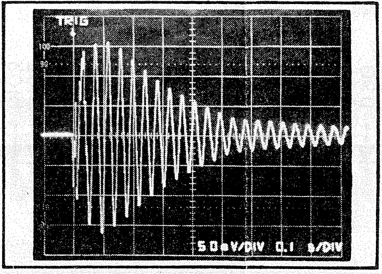
• DIODES
D1, 2: SVDGERA1502Y
D3~6: SVDS3V20
D7, 8: MA165TA5
D9: SVDGRK14
D10: MA2062LF

• FUSES
F1: XBA1C40NU100

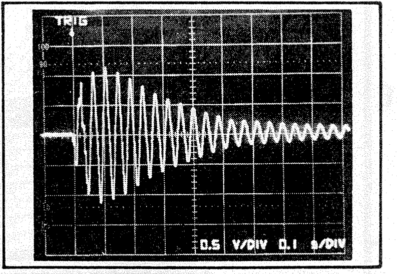
❶ Lch



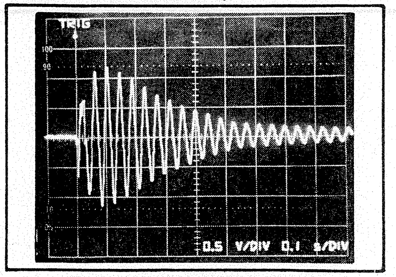
❷ Rch



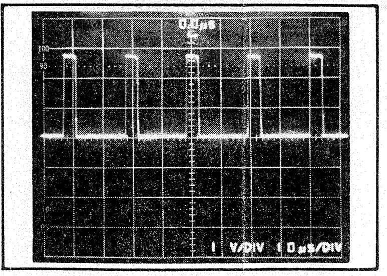
❸ Line Out (Lch)



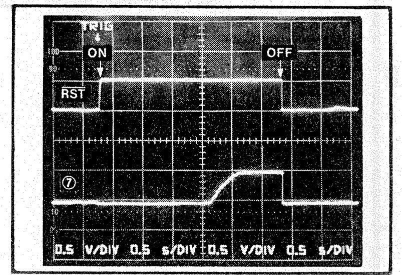
❹ Line Out (Rch)



❻

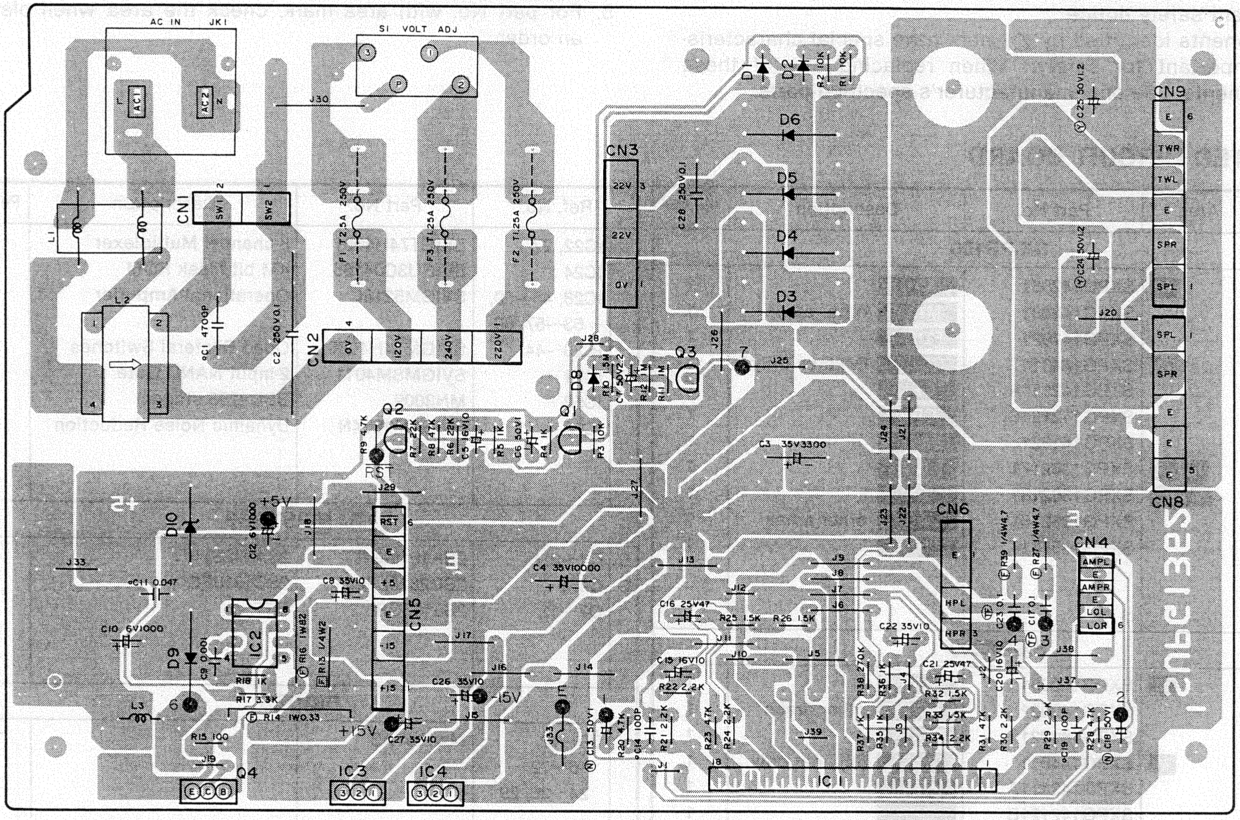


RST, ❼



• Power.................................ON → OFF

- Products for (XL) and (XR) areas **SXPG1362171**
- Except for (XL) (XR) (M) (MC) areas **SXPG1362161**

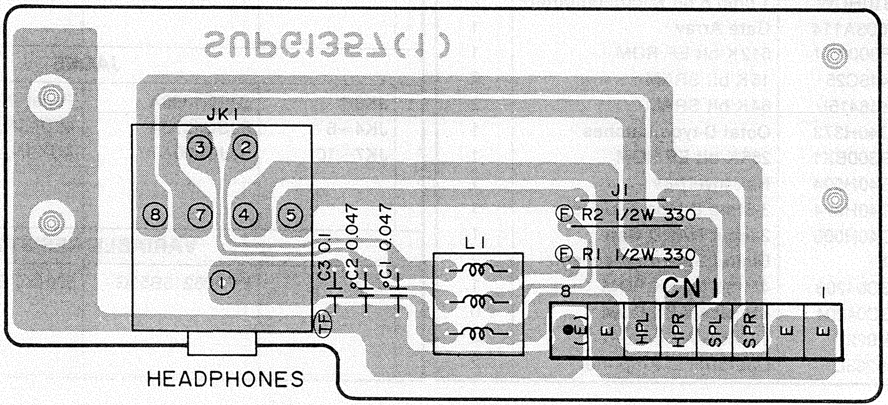

AC IN
JK1
AC1
AC2
S1 VOLT ADJ
J30
CN1
SW1
SW2
L1
L2
C1 4700P
C2 250V0.1
F1 T2.5A 250V
F3 T1.25A 250V
F2 T1.25A 250V
CN2
0V
120V
240V
220V
CN3
22V
22V
0V
C28 250V0.1
D1
D2
R2 10K
R1 10K
D3
D4
D5
D6
C25 50V1.2
C24 50V1.2
CN9
E
TWR
TWL
E
SPR
SPL
J20
CN8
SPL
SPR
E
E
E
J28
D8
Q1
Q2
Q3
RST
R9 4.7K
R7 22K
R8 47K
R6 22K
C5 16V10
R5 1K
C6 50V1
R4 1K
R3 10K
C3 35V3300
J24
J21
J25
J26
J27
J23
J22
CN6
E
HPL
HPR
R39 1/4W47
R27 1/4W47
CN4
AMPL
E
AMPR
E
LOL
LOR
+5
D10
C12 6V1000
+5V
J18
J29
CN5
RST
E
+5
E
-15
+15
J33
C11 0.047
C10 6V1000
C8 35V10
C4 35V10000
D9
C9 0.001
IC2
R16 1W82
R15 1/4W2
R18 1K
R17 3.3K
R14 1W0.33
R15 100
L3
J19
Q4
ECB
J17
J16
J14
J15
C26 35V10
-15V
+15V
C27 35V10
IC3
IC4
J13
J12
J9
J8
J7
J6
J11
J10
J5
C16 25V47
R25 1.5K
R26 1.5K
C22 35V10
C15 16V10
R22 2.2K
C21 25V47
R32 1.5K
C20 16V10
C17 0.1
C23 0.1
R38 270K
R36 1K
R33 1.5K
R34 2.2K
R37 1K
J39
J38
J37
R31 47K
R30 2.2K
R29 2.2K
C19 100P
R28 47K
C18 50V1
C13 50V1
R20 47K
C14 100P
R21 2.2K
R23 47K
R24 2.2K
J1
J3
IC1
SUPG1362

NOTES:

- IC'S
  IC1: SVIGS4132M2M
  IC2: SVIGM5291P
  IC3: SVIGM5F7815
  IC4: SVIGM5F7915
- TRANSISTORS
  Q1, 2: 2SC2320LFG
  Q3: 2SA1015-GR
  Q4: 2SB953AQP
- DIODES
  D1, 2: SVDGERA1502Y
  D3~6: SVDS3V20
  D7, 8: MA165TA5
  D9: SVDGRK14
  D10: MA2062LF
- FUSES
  F1: XBA2C25TB0
  F2, 3: XBA2C12TB0

HP HEADPHONES CIRCUIT BOARD

SXPG135731


SUPG135731(1)
JK1
3
2
8
7
4
5
1
C3 0.1
C2 0.047
C1 0.047
L1
J1
R2 1/2W 330
R1 1/2W 330
8
CN1
1
(E)
E
HPL
HPR
SPL
SPR
E
E
HEADPHONES

REPLACEMENT PARTS LIST......P.C.B. and Wiring Parts

Notes:

1. Printed circuit board assembly with mark (NLA) is no longer available after production discontinuation of the complete set.
2. Important safety notice
   Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. The "S" mark is service standard parts and may differ from production parts.
4. ○ mark are new parts.
5. For part No. with area mark, check the area when placing an order.

■ PRINTED CIRCUIT BOARD

	NLA	Area	Part No.	Description	Per/Set
			SX-PR100		
○	NLA	M	SXPG142061	MAIN	1
○	NLA		SXPG142031	MAIN other areas	1
○	NLA		SXPG141921	FDCN	1
○	NLA	M	SXPG144011	CL & F [M] area only	1
○	NLA		SXPG142111A	CPL	1
○	NLA		SXPG142121B	CPR	1
○	NLA		SXPG141321	MKB	1
○	NLA	XL XR	SXPG1362171	AS	1
○	NLA	M MC	SXPG1362181	AS	1
○	NLA		SXPG1362161	AS other areas	1
○	NLA		SXPG135731	HP	1
			SX-PR200		
○	NLA	M	SXPG142051	MAIN	1
○	NLA		SXPG142021	MAIN other areas	1
○	NLA		SXPG141921	FDCN	1
○	NLA	M	SXPG144011	CL & F [M] area only	1
○	NLA		SXPG142111A	CPL	1
○	NLA		SXPG142121B	CPR	1
○	NLA		SXPG141311	MKB	1
○	NLA	XL XR	SXPG1362171	AS	1
○	NLA	M MC	SXPG1362181	AS	1
○	NLA		SXPG1362161	AS other areas	1
○	NLA		SXPG135731	HP	1

MAIN MAIN CIRCUIT

	Ref. No.	Part No.	Description	Per/Set
		INTEGRATED CIRCUITS		
	IC1	SVIGM74LS07	Hex Buffers (O.C.)	1
	IC2	SVIGM74LS05	Hex Inverters (O.C.)	1
	IC4	SVIGTLP513	Photo Coupler	1
	IC5, 11	SVIG7810HCW	1 chip 8 bit Microcomputer	2
	IC6	SVIGM603A114	Gate Array	1
○	IC7	SVIG5R300AX1	512K bit EP ROM	1
	IC8, 14	SVIGD446C25	16K bit SRAM	2
	IC9, 10	SVIGD446415L	64K bit SRAM	2
	IC12	SVIGTC40H373	Octal D-type Latches	1
○	IC13	SVIG2R300BX1	256K bit EP ROM	1
	IC15	SVIGTC40H004	Hex Inverters	1
	IC16	SVIGTC40H374	3-State D-type Flip-Flop	1
	IC17	SVIGTC40H000	2-Input NAND Gate	1
	IC18, 23	MN6635	Digital Sound Processor	2
○	IC19 - IC1	SVIGU3C04203	4M bit MASK ROM	1
	IC2	SVIGU3C04204	4M bit MASK ROM	0
	IC20, 25	SVIGBA9221	12 bit D-A Converter	2
	IC21, 26	SVIGM5238L	Operational Amplifier	2
	IC22, 27	SVIGT74H4051	8-channel Multiplexer	2
	IC24	SVIGU3C04165	4M bit Mask ROM	1
	IC28, 45~50, 53~57, 60	SVIGM5218L	Operational Amplifier	13
	IC29~44	SVIGM74H4066	Quad Bilateral Switches	16
	IC51	SVIGMSM4011	2-input NAND Gate	1
	IC52	MN3009	BBD (256 stages)	1
	IC58	SVIGLM1894N	Dynamic Noise Reduction	1
		TRANSISTORS		
S	Q1~3, 5	2SA1015-GR	2SA933STRS	4
S	Q4, 6	2SC2320LFG	2SC1310FG	2
	Q7~12	2SJ105GR	FET	6
		DIODES		
	D9~12, 15~22, 24~26, 29	MA165TA5		16
		OSCILLATORS		
	X1, 3	SVQG49S1500T	15MHz, Quartz Oscillator	2
	X2	EF0FC4004A3	4MHz, Ceramic Oscillator	1
	X4	SVQG49S1600T	16MHz, Quartz Oscillator	1
		COMPONENT COMBINATIONS		
○	Z1, 2, 4, 5	EXBP78472JM	4.7KΩ×8	4
○	Z3, 6	EXBP74472JM	4.7KΩ×8	2
	Z7, 8	EXKS14Z2073	1KΩ/2KΩ, Ladder Network	2
		COIL & LINE FILTERS		
	L8	SLQG15W34DPQ	Coil	1
	L9	SLQG15W24DPQ	Coil	1
		JACKS		
	JK3	SJSG1390A	Pedal IN	1
	JK4~6	SJSG1370A	MIDI (IN, OUT, THRU)	3
	JK7~10	SJJG400A	AUX IN, LINE OUT	4
		VARIABLE RESISTOR		
	VR1	EVA06215B55G	500KΩ B, Tuning	1

Ref. No.	Part No.	Description	Per/Set
SEMI-FIXED RESISTOR			
VR2	EVSG0E1B223A	22KΩ B,	1
RESISTORS			
R1	ERDS2TJ472	4.7KΩ	1
R2	ERDS2TJ102	1KΩ	1
R5	ERDS2TJ221	220Ω	1
R6	ERDS2TJ473	47KΩ	1
R7	ERDS2TJ102	1KΩ	1
R8	ERDS2TJ331	330Ω	1
R9	ERDS2TJ102	1KΩ	1
R10	ERDS2TJ272	2.7KΩ	1
R11, 12	ER0S2TKF1001	1KΩ, ±1%	2
R13, 14	ERDS2TJ471	470Ω	2
R15	ERDS2TJ103	10KΩ	1
R16	ERDS2TJ102	1KΩ	1
R17, 18	ERDS2TJ103	10KΩ	2
R22	ERDS2TJ102	1KΩ	1
R23, 24	ERDS2TJ103	10KΩ	2
R25	ERDS2TJ680	68Ω	1
R26	ERDS2TJ151	150Ω	1
R27	ERDS2TJ221	220Ω	1
R28	ERDS2TJ333	33KΩ	1
R29	ERDS2TJ221	220Ω	1
R30	ERDS2TJ331	330Ω	1
R31	ERDS2TJ680	68Ω	1
R32	ERDS2TJ151	150Ω	1
R33	ERDS2TJ221	220Ω	1
R34	ERDS2TJ333	33KΩ	1
R35~37	ERDS2TJ102	1KΩ	3
R40 ⚠	ERD2FCJ6R8	6.8Ω, 1/4W, Fuse Type	1
R41	ERDS2TJ183	18KΩ	1
R42	ERDS2TJ332	3.3KΩ	1
R43	ERDS2TJ105	1MΩ	1
R44	ERDS2TJ221	220Ω	1
R45	ERDS2TJ103	10KΩ	1
R46	ERDS2TJ823	82KΩ	1
R47	ERDS2TJ223	22KΩ	1
R48	ERDS2TJ103	10KΩ	1
R49	ERDS2TJ473	47KΩ	1
R50	ERDS2TJ102	1KΩ	1
R51, 52 ⚠	ERD2FCJ4R7	4.7Ω, 1/4W, Fuse Type	2
R53 ⚠	ERD2FCG100	10Ω, 1/4W, Fuse Type	1
R54	ERDS2TJ153	15KΩ	1
R55, 56	ERDS2TJ471	470Ω	2
R57, 58	ER0S2TKF4700	470Ω, ±1%	2
R59	ERDS2TJ153	15KΩ	1
R60, 61	ERDS2TJ471	470Ω	2
R62, 63	ER0S2TKF4700	470Ω, ±1%	2
R64, 65	ERDS2TJ472	4.7KΩ	2
R66	ERDS2TJ102	1KΩ	1
R67	ERDS2TJ151	150Ω	1
R68, 69	ERDS2TJ331	330Ω	2
R70	ERDS2TJ473	47KΩ	1
R71	ERDS2TJ151	150Ω	1
R72, 73	ERDS2TJ331	330Ω	2
R74	ERDS2TJ473	47KΩ	1
R75	ERDS2TJ151	150Ω	1
R76, 77	ERDS2TJ331	330Ω	2
R78	ERDS2TJ473	47KΩ	1
R79	ERDS2TJ151	150Ω	1
R80, 81	ERDS2TJ331	330Ω	2
R82	ERDS2TJ473	47KΩ	1
R83	ERDS2TJ151	150Ω	1
R84, 85	ERDS2TJ331	330Ω	2
R86	ERDS2TJ473	47KΩ	1
R87	ERDS2TJ151	150Ω	1
R88, 89	ERDS2TJ331	330Ω	2
R90	ERDS2TJ473	47KΩ	1
R91	ERDS2TJ151	150Ω	1
R92, 93	ERDS2TJ331	330Ω	2
R94	ERDS2TJ473	47KΩ	1
R95	ERDS2TJ151	150Ω	1
R96, 97	ERDS2TJ331	330Ω	2
R98	ERDS2TJ473	47KΩ	1
R99	ERDS2TJ151	150Ω	1
R100, 101	ERDS2TJ331	330Ω	2
R102	ERDS2TJ473	47KΩ	1
R103	ERDS2TJ151	150Ω	1
R104, 105	ERDS2TJ331	330Ω	2
R106	ERDS2TJ473	47KΩ	1
R107	ERDS2TJ151	150Ω	1
R108, 109	ERDS2TJ331	330Ω	2
R110	ERDS2TJ473	47KΩ	1
R111	ERDS2TJ151	150Ω	1
R112, 113	ERDS2TJ331	330Ω	2
R114	ERDS2TJ473	47KΩ	1
R115	ERDS2TJ151	150Ω	1
R116, 117	ERDS2TJ331	330Ω	2
R118	ERDS2TJ473	47KΩ	1
R119	ERDS2TJ151	150Ω	1
R120, 121	ERDS2TJ331	330Ω	2
R122	ERDS2TJ473	47KΩ	1
R123	ERDS2TJ151	150Ω	1
R124, 125	ERDS2TJ331	330Ω	2
R126	ERDS2TJ473	47KΩ	1
R127	ERDS2TJ151	150Ω	1
R128, 129	ERDS2TJ331	330Ω	2
R130	ERDS2TJ473	47KΩ	1
R131	ERDS2TJ683	68KΩ	1
R132	ERDS2TJ682	6.8KΩ	1
R133~135	ERDS2TJ473	47KΩ	3
R136	ERDS2TJ683	68KΩ	1
R137	ERDS2TJ682	6.8KΩ	1
R138~141	ERDS2TJ473	47KΩ	4
R142	ERDS2TJ104	100KΩ	1
R143	ERDS2TJ682	6.8KΩ	1
R144, 145	ERDS2TJ683	68KΩ	2
R146	ERDS2TJ563	56KΩ	1
R147	ERDS2TJ473	47KΩ	1
R148	ERDS2TJ104	100KΩ	1
R149	ERDS2TJ472	4.7KΩ	1
R150~153	ERDS2TJ333	33KΩ	4
R154	ERDS2TJ393	39KΩ	1
R155	ERDS2TJ183	18KΩ	1
R156	ERDS2TJ681	680Ω	1
R157	ERDS2TJ472	4.7KΩ	1
R158	ERDS2TJ333	33KΩ	1
R159	ERDS2TJ393	39KΩ	1
R160	ERDS2TJ183	18KΩ	1
R161	ERDS2TJ681	680Ω	1
R162	ERDS2TJ472	4.7KΩ	1
R163, 164	ERDS2TJ103	10KΩ	2
R165	ERDS2TJ473	47KΩ	1
R166	ERDS2TJ105	1MΩ	1
R167	ERDS2TJ223	22KΩ	1
R168	ERDS2TJ473	47KΩ	1
R169	ERDS2TJ102	1KΩ	1
R170	ERDS2TJ183	18KΩ	1
R171	ERDS2TJ124	120KΩ	1
R172, 173	ERDS2TJ332	3.3KΩ	2
R174	ERDS2TJ124	120KΩ	1
R175	ERDS2TJ153	15KΩ	1
R176	ERDS2TJ154	150KΩ	1

Ref. No.	Part No.	Description	Per/Set
R177	ERDS2TJ103	10KΩ	1
R178	ERDS2TJ333	33KΩ	1
R179, 180	ERDS2TJ473	47KΩ	2
R181	ERDS2TJ104	100KΩ	1
R182	ERDS2TJ473	47KΩ	1
R183~185	ERDS2TJ104	100KΩ	3
R186	ERDS2TJ473	47KΩ	1
R187	ERDS2TJ104	100KΩ	1
R188	ERDS2TJ473	47KΩ	1
R189~191	ERDS2TJ104	100KΩ	3
R192	ERDS2TJ394	390KΩ	1
R193	ERDS2TJ184	180KΩ	1
R194, 195	ERDS2TJ473	47KΩ	2
R196~198	ERDS2TJ104	100KΩ	3
R199	ERDS2TJ394	390KΩ	1
R200	ERDS2TJ184	180KΩ	1
R201, 202	ERDS2TJ473	47KΩ	2
R203	ERDS2TJ104	100KΩ	1
R207~210	ERDS2TJ105	1MΩ	4
R211	ERDS2TJ472	4.7KΩ	1
R214	ERDS2TJ104	100KΩ	1
R215	ERDS2TJ183	18KΩ	1
R216	ERDS2TJ563	56KΩ	1
R217	ERDS2TJ104	100KΩ	1
R218	ERDS2TJ183	18KΩ	1
R219	ERDS2TJ563	56KΩ	1
R223~225	ERDS2TJ473	47KΩ	3
R226	ERDS2TJ104	100KΩ	1
R230	ERDS2TJ104	100KΩ	1
R231	ERDS2TJ223	22KΩ	1
R232	ERDS2TJ473	47KΩ	1
R233	ERDS2TJ104	100KΩ	1
R234	ERDS2TJ331	330Ω	1
R235	ERDS2TJ681	680Ω	1
R236, 237	ERDS2TJ331	330Ω	2
R238, 239	ERDS2TJ183	18KΩ	2
R240, 241	ERDS2TJ153	15KΩ	2
R242	ERDS2TJ563	56KΩ	1
R243	ERDS2TJ681	680Ω	1
R244	ERDS2TJ563	56KΩ	1
R245	ERDS2TJ681	680Ω	1
R246	ERDS2TJ822	8.2KΩ	1
R247, 248	ERDS2TJ681	680Ω	2
R249	ERDS2TJ822	8.2KΩ	1
R250	ERDS2TJ681	680Ω	1
R251, 252	ERDS2TJ102	1KΩ	2
R253, 254	ERDS2TJ333	33KΩ	2
R255	ERDS2TJ105	1MΩ	1
R256	ERDS2TJ152	1.5KΩ	1
R260	ERDS2TJ223	22KΩ	1
R262, 263	ERDS2TJ123	12KΩ	2
R264	ERDS2TJ472	4.7KΩ	1
CAPACITORS			
C2	ECCR1H471J	470pF	1
C3	ECCR1H221J	220pF	1
C4	ECKR1E473ZV	0.047μF	1
C7, 8	ECKR1E473ZV	0.047μF	2
C10	ECKR1E473ZV	0.047μF	1
C14	ECEA0JU101	100μF, 6.3V	1
C15	ECKR1E473ZV	0.047μF	1
C19, 20	ECKR1E473ZV	0.047μF	2
C22	ECKR1E473ZV	0.047μF	1
C27, 28	ECEA0JU101	100μF, 6.3V	2
C29	ECEA1HUR47	0.47μF, 50V	1
C30	ECKR1E473ZV	0.047μF	1

Ref. No.	Part No.	Description	Per/Set
C31	ECRR1H104ZF	0.1μF	1
C32~34	ECKR1E473ZV	0.047μF	3
C35	AC2061G473Z5	0.047μF, 5.5V	1
C38	ECEA0JU101	100μF, 6.3V	1
C39, 40	ECRR1H104ZF	0.1μF	2
C41~43	ECKR1E473ZV	0.047μF	3
C45	ECEA0JU331	330μF, 6.3V	1
C46, 47	ECEA1CU101	100μF, 16V	2
C48	ECEA0JU101	100μF, 6.3V	1
C51	ECRR1H104ZF	0.1μF	1
C52, 53	ECKR1E473ZV	0.047μF	2
C54	ECCR1H221J	220pF	1
C55	ECKR1E473ZV	0.047μF	1
C56	ECEA0JU331	330μF, 6.3V	1
C57	ECKR1E473ZV	0.047μF	1
C59, 60	ECKR1E473ZV	0.047μF	2
C61	ECCR1H221J	220pF	1
C62	ECKR1E473ZV	0.047μF	1
C63	ECEA0JU331	330μF, 6.3V	1
C64, 65	ECEA0JU470	47μF, 6.3V	2
C66	ECEA0JU102	1000μF, 6.3V	1
C67~70	ECKR1E473ZV	0.047μF	4
C71	ECEA0JU101	100μF, 6.3V	1
C72	ECQG1H472KZ	0.0047μF	1
C73	ECQG1H102KZ	0.001μF	1
C74	ECQG1H472KZ	0.0047μF	1
C75	ECQG1H102KZ	0.001μF	1
C76	ECQG1H472KZ	0.0047μF	1
C77	ECQG1H102KZ	0.001μF	1
C78	ECQG1H472KZ	0.0047μF	1
C79	ECQG1H102KZ	0.001μF	1
C80	ECQG1H472KZ	0.0047μF	1
C81	ECQG1H102KZ	0.001μF	1
C82	ECQG1H472KZ	0.0047μF	1
C83	ECQG1H102KZ	0.001μF	1
C84	ECQG1H472KZ	0.0047μF	1
C85	ECQG1H102KZ	0.001μF	1
C86	ECQG1H472KZ	0.0047μF	1
C87	ECQG1H102KZ	0.001μF	1
C88	ECQG1H472KZ	0.0047μF	1
C89	ECQG1H102KZ	0.001μF	1
C90	ECQG1H472KZ	0.0047μF	1
C91	ECQG1H102KZ	0.001μF	1
C92	ECQG1H472KZ	0.0047μF	1
C93	ECQG1H102KZ	0.001μF	1
C94	ECQG1H472KZ	0.0047μF	1
C95	ECQG1H102KZ	0.001μF	1
C96	ECQG1H472KZ	0.0047μF	1
C97	ECQG1H102KZ	0.001μF	1
C98	ECQG1H472KZ	0.0047μF	1
C99	ECQG1H102KZ	0.001μF	1
C100	ECQG1H472KZ	0.0047μF	1
C101	ECQG1H102KZ	0.001μF	1
C102	ECQG1H472KZ	0.0047μF	1
C103	ECQG1H102KZ	0.001μF	1
C104	ECCR1H221J	220pF	1
C105	ECEA0JU470	47μF, 6.3V	1
C106	ECQG1H332KZ	0.0033μF	1
C107, 108	ECCR1H471J	470pF	2
C109	ECCR1H101J	100pF	1
C110	ECCR1H221J	220pF	1
C111	ECQG1H332KZ	0.0033μF	1
C112, 113	ECCR1H471J	470pF	2
C114	ECCR1H101J	100pF	1
C115	ECQG1H472KZ	0.0047μF	1
C116	ECCR1H221J	220pF	1
C117	ECQG1H472KZ	0.0047μF	1
C118, 119	ECCR1H471J	470pF	2

Ref. No.	Part No.	Description	Per/Set
C120	ECCR1H101J	100pF	1
C121	ECQG1H472KZ	0.0047μF	1
C122	ECCR1H221J	220pF	1
C123	ECQG1H332KZ	0.0033μF	1
C124, 125	ECCR1H471J	470pF	2
C126	ECCR1H101J	100pF	1
C127, 128	ECCR1H331J	330pF	2
C129	ECCR1H681J	680pF	1
C130, 131	ECCR1H331J	330pF	2
C132	ECCR1H681J	680pF	1
C133	ECKR1E473ZV	0.047μF	1
C134	ECEA1HN010S	1μF, 50V	1
C135	ECEA1CU470	47μF, 16V	1
C136	ECEA1CU101	100μF, 16V	1
C137, 138	ECCR1H151J	150pF	2
C139	ECQG1H102KZ	0.001μF	1
C140	ECQV1H104JZ	0.1μF	1
C141, 142	ECQG1H102KZ	0.001μF	2
C143, 144	ECCR1H680J	68pF	2
C145	ECEA1HU010	1μF, 50V	1
C146	ECCR1H101J	100pF	1
C147	ECEA1HN010S	1μF, 50V	1
C148	ECQG1H472KZ	0.0047μF	1
C149	ECQG1H152KZ	0.0015μF	1
C150	ECEA1HN010S	1μF, 50V	1
C151	ECQG1H472KZ	0.0047μF	1
C152	ECCR1H470J	47pF	1
C154~156	ECKR1E473ZV	0.047μF	3
C157	ECEA1HU010	1μF, 50V	1
C158, 159	ECEA50M1R	1μF, 50V	2
C160	ECQV1H224JZ	0.22μF	1
C161	ECEA1HN010S	1μF, 50V	1
C162	ECCR1H101J	100pF	1
C163	ECEA1HN010S	1μF, 50V	1
C164	ECCR1H101J	100pF	1
C165, 166	ECEA50M1R	1μF, 50V	2
C167	ECCR1H470J	47pF	1
C168	ECEA1HU010	1μF, 50V	1
C169	ECCR1H470J	47pF	1
C170	ECEA1HU010	1μF, 50V	1
C171	ECEA1CU470	47μF, 16V	1
C172	ECQG1H472KZ	0.0047μF	1
C173	ECQV1H104JZ	0.1μF	1
C174	ECQG1H102KZ	0.001μF	1
C175	ECQG1H332KZ	0.0033μF	1
C176	ECQV1H473JZ	0.047μF	1
C177	ECEA1CU100	10μF, 16V	1
C178	ECQG1H472KZ	0.0047μF	1
C179	ECEA1CU470	47μF, 16V	1
C180	ECEA1CU100	10μF, 16V	1
C181	ECCR1H101J	100pF	1
C182	ECEA1CU100	10μF, 16V	1
C183~185	ECCR1H101J	100pF	3
C186	ECKR1E473ZV	0.047μF	1
C187	ECEA0JU470	47μF, 6.3V	1
C188~191	ECKR1E473ZV	0.047μF	4
C195	ECQG1H332KZ	0.0033μF	1
C196, 197	ECQV1H683JZ	0.068μF	2

CL & F CURRENT LIMIT CIRCUIT

	Ref. No.	Part No.	Description	Per/Set
		TRANSISTORS		
	Q1, 2	2SB941P		2
		RESISTORS		
○	R1, 2 ⚠	ERX2ANJR22	0.22Ω, 2W, Flame-Proof	2
	R3	ERDS2TJ103	10KΩ	1
	R4	ERDS2TJ822	8.2KΩ	1
	R5	ERDS2TJ151	150Ω	1
		CAPACITOR		
	C1	ECEA1CU331	330μF, 16V	1

CPL CONTROL PANEL LEFT CIRCUIT

	Ref. No.	Part No.	Description	Per/Set
		INTEGRATED CIRCUITS		
○	IC1	SVIGM603A121	Gate Array	1
	IC2~4	SVIGM74LS07	Hex Buffers (O.C.)	3
		TRANSISTORS		
	Q1~4	2SA830SB		4
		DIODES		
	D1~38	MA165TA5		38
	D39~47, 52~81, 83, 84	LN282R	LED (Red)	41
	D48~50, 82	LN382G	LED (Green)	4
		DISPLAYS		
	LD1	LN514RA		1
	LD2	LN524RA		1
		COMPONENT COMBINATION		
○	Z1	EXBP78103JM	10KΩ×8	1
		VARIABLE RESISTORS		
	VR1	EWD06910B53G	5KΩ B, Main Volume	1
	VR2	EVD06510B24G	20KΩ B, Tempo Volume	1
		RESISTORS		
	R2	ERDS2TJ184	180KΩ	1
	R3	ERDS2TJ221	220Ω	1
	R4	ERDS2TJ103	10KΩ	1
	R5	ERDS2TJ152	1.5KΩ	1
	R6~9	ERDS2TJ103	10KΩ	4
	R10~13	ERDS2TJ152	1.5KΩ	4
	R14~31	ERDS2TJ470	47Ω	18

	Ref. No.	Part No.	Description	Per/Set
	CAPACITORS			
	C2	ECEA0JK101	100µF, 6.3V	1
	C3	ECRR1H104ZF	0.1µF	1
	C4	ECCR1H101J	100pF	1
	C5	ECEA1HK010	1µF, 50V	1
	C7, 8	ECRR1H104ZF	0.1µF	2

CPR CONTROL PANEL RIGHT CIRCUIT

	Ref. No.	Part No.	Description	Per/Set
	INTEGRATED CIRCUITS			
○	IC1	SVIGM603A121	Gate Array	1
	IC2~4	SVIGM74LS07	Hex Buffers (O.C.)	3
	TRANSISTORS			
	Q1~4	2SA830SB		4
	DIODES			
	D1~7, 12~14, 16~24, 27~35, 37~47, 49~56	MA165TA5		47
	D58~63	LN382G	LED (Green)	6
	D68~71, 73~81, 84~92, 94, 96~106, 108~115	LN282R	LED (Red)	42
	COMPONENT COMBINATION			
○	Z1	EXBP78103JM	10KΩ×8	1
	RESISTORS			
	R2	ERDS2TJ184	180KΩ	1
	R3	ERDS2TJ221	220Ω	1
	R4	ERDS2TJ103	10KΩ	1
	R5	ERDS2TJ152	1.5KΩ	1
	R6~9	ERDS2TJ103	10KΩ	4
	R10~13	ERDS2TJ152	1.5KΩ	4
	R14, 15	ERDS2TJ470	47Ω	2
	R17~29	ERDS2TJ470	47Ω	13
	CAPACITORS			
	C2	ECEA0JK101	100µF, 6.3V	1
	C3	ECRR1H104ZF	0.1µF	1
	C4	ECCR1H101J	100pF	1
	C5	ECEA1HK010	1µF, 50V	1
	C6, 7	ECRR1H104ZF	0.1µF	2

MKB MANUAL KEYBOARD CIRCUIT (SX-PR100)

	Ref. No.	Part No.	Description	Per/Set
	INTEGRATED CIRCUITS			
	IC1	MN50020PGV	Gate Array	1
	IC2	notsupplied		1
	DIODES			
S	D1~152	MA162A	MA150IR	152
	OSCILLATOR			
	X1	EF0FC4004A3	4MHz, Ceramic Oscillator	1
	COMPONENT COMBINATION			
	Z1	EXBP88332JM	3.3KΩ×8	1
	SWITCHES			
	S1~14, 45~58	SSPG7003A	Rubber Switch (7 continuous)	4
	S15~49, 59~76	SSPG6003A	Rubber Switch (6 continuous)	8
	RESISTORS			
	R1	ERDS2TJ101	100Ω	1
	R2	ERDS2TJ103	10KΩ	1
	R3	ERDS2TJ222	2.2KΩ	1
	R4	ERDS2TJ472	4.7KΩ	1
	CAPACITORS			
	C1	ECCR1H681J	680pF	1
	C2	ECKR1E473ZV	0.047µF	1
	C3	ECCR1H681J	680pF	1
	C4	ECEA1CU470	47µF, 16V	1

MKB MANUAL KEYBOARD CIRCUIT (SX-PR200)

	Ref. No.	Part No.	Description	Per/Set
	INTEGRATED CIRCUITS			
	IC1	MN50020PGV	Gate Array	1
	IC2	notsupplied		1
	DIODES			
S	D1~176	MA162A	MA150IR	176
	OSCILLATOR			
	X1	EF0FC4004A3	4MHz, Ceramic Oscillator	1
	COMPONENT COMBINATION			
	Z1	EXBP88332JM	3.3KΩ×8	1

Ref. No.	Part No.	Description	Per/Set
SWITCHES			
S1~14, 45~58	SSPG7003A	Rubber Switch (7 continuous)	4
S15~49, 59~88	SSPG6003A	Rubber Switch (6 continuous)	10
RESISTORS			
R1	ERDS2TJ101	100Ω	1
R2	ERDS2TJ103	10KΩ	1
R3	ERDS2TJ222	2.2KΩ	1
R4	ERDS2TJ472	4.7KΩ	1
CAPACITORS			
C1	ECCR1H681J	680pF	1
C2	ECKR1E473ZV	0.047μF	1
C3	ECCR1H681J	680pF	1
C4	ECEA1CU470	47μF, 16V	1

AS AMP & POWER SUPPLY CIRCUIT

Ref. No.	Part No.	Description	Per/Set
INTEGRATED CIRCUITS			
IC1	SVIGS4132M2M	Power Amplifier	1
IC2	SVIGM5291P	Switching Regulator	1
IC3	SVIGM5F7815	Voltage Regulator	1
IC4	SVIGM5F7915	Voltage Regulator	1
TRANSISTORS			
S Q1, 2	2SC2320LFG	2SC1310FG	2
S Q3	2SA1015-GR	2SA933STRS	1
Q4	2SB953AQP	TRANSISTOR	1
DIODES			
D1, 2 ⚠	SVDGERA1502Y	Rectifier	2
D3~6 ⚠	SVDS3V20	Rectifier	4
D8	MA165TA5		1
D9	SVDGRK14		1
D10	MA2062LF	Zener	1
COIL & LINE FILTERS			
L1 ⚠	SLQG10W2D1	Coil	1
L2 ⚠	SLTGLF3	Line Filter	1
L3	SLCG2A121TZ	Coil	1
JACK			
JK1 ⚠	SJVD0203B	AC Inlet	1
SWITCH			
S1 ⚠	SSRG100A	Voltage Selector	1
FUSES			
F1 M MC ⚠	XBA1C40NU100	4A, 125V, [M] & [MC] areas	1
F1 ⚠	XBA2C25TB0	T2.5A, 250V } Except [M]	1
F2, 3 ⚠	XBA2C12TB0	T1.25A, 250V } [MC] areas	2
RESISTORS			
R1~3	ERDS2TJ103	10KΩ	3
R4, 5	ERDS2TJ102	1KΩ	2
R6, 7	ERDS2TJ223	22KΩ	2
R8	ERDS2TJ473	47KΩ	1
R9	ERDS2TJ472	4.7KΩ	1
R10	ERDS2TJ155	1.5MΩ	1
R11, 12	ERDS2TJ105	1MΩ	2
R13 ⚠	ERQ14AJ2R0P	2Ω, 1/4W, Fuse Type	1
R14 ⚠	ERX1ANJPR33S	0.33Ω, 1W, Flame-Proof	1
R15	ERDS2TJ101	100Ω	1
R16 ⚠	ERG1ANJP820S	82Ω, 1W, Flame-Proof	1
R17	ERDS2TJ332	3.3KΩ	1
R18	ERDS2TJ102	1KΩ	1
R20	ERDS2TJ472	4.7KΩ	1
R21, 22	ERDS2TJ222	2.2KΩ	2
R23	ERDS2TJ473	47KΩ	1
R24	ERDS2TJ222	2.2KΩ	1
R25, 26	ERDS2TJ152	1.5KΩ	2
R27 ⚠	ERD25FVJ4R7	4.7Ω, 1/4W, Flame-Proof	1
R28	ERDS2TJ472	4.7KΩ	1
R29, 30	ERDS2TJ222	2.2KΩ	2
R31	ERDS2TJ473	47KΩ	1
R32, 33	ERDS2TJ152	1.5KΩ	2
R34	ERDS2TJ222	2.2KΩ	1
R35~37	ERDS2TJ102	1KΩ	3
R38	ERDS2TJ274	270KΩ	1
R39 ⚠	ERD25FVJ4R7	4.7Ω, 1/4W, Flame-Proof	1
CAPACITORS			
C1 ⚠	ECKCVA1472MF	4700pF, Line-Capacitor	1
C2 ⚠	ECQU2A104MN	0.1μF, Across-the Line Capacitor	1
C3	ECEA1VU332	3300μF, 35V	1
C4	ECES1VU103N	10000μ, 35V	1
C5	ECEA1CU100	10μF, 16V	1
C6	ECEA1HU010	1μF, 50V	1
C7	ECEA1HU2R2	2.2μF, 50V	1
C8	ECEA1VU100	10μF, 35V	1
C9	ECQG1H102KZ	0.001μF	1
C10	ECEA0JU102	1000μF, 6.3V	1
C11	ECKR1E473ZV	0.047μF	1
C12	ECEA0JU102	1000μF, 6.3V	1
C13	ECEA1HN010S	1μF, 50V	1
C14	ECCR1H101J	100pF	1
C15	ECEA1CU100	10μF, 16V	1
C16	ECEA1EU470	47μF, 25V	1
C17	ECQV1H104JZ	0.1μF	1
C18	ECEA1HN010S	1μF, 50V	1
C19	ECCR1H101J	100pF	1
C20	ECEA1CU100	10μF, 16V	1
C21	ECEA1EU470	47μF, 25V	1
C22	ECEA1VU100	10μF, 35V	1
C23	ECQV1H104JZ	0.1μF	1
C24, 25	ECEA50Y1R2K	1.2μF, 50V	2
C26, 27	ECEA1VU100	10μF, 35V	2
○ C28	ECQE1A104M6	0.1μF, 125V	1

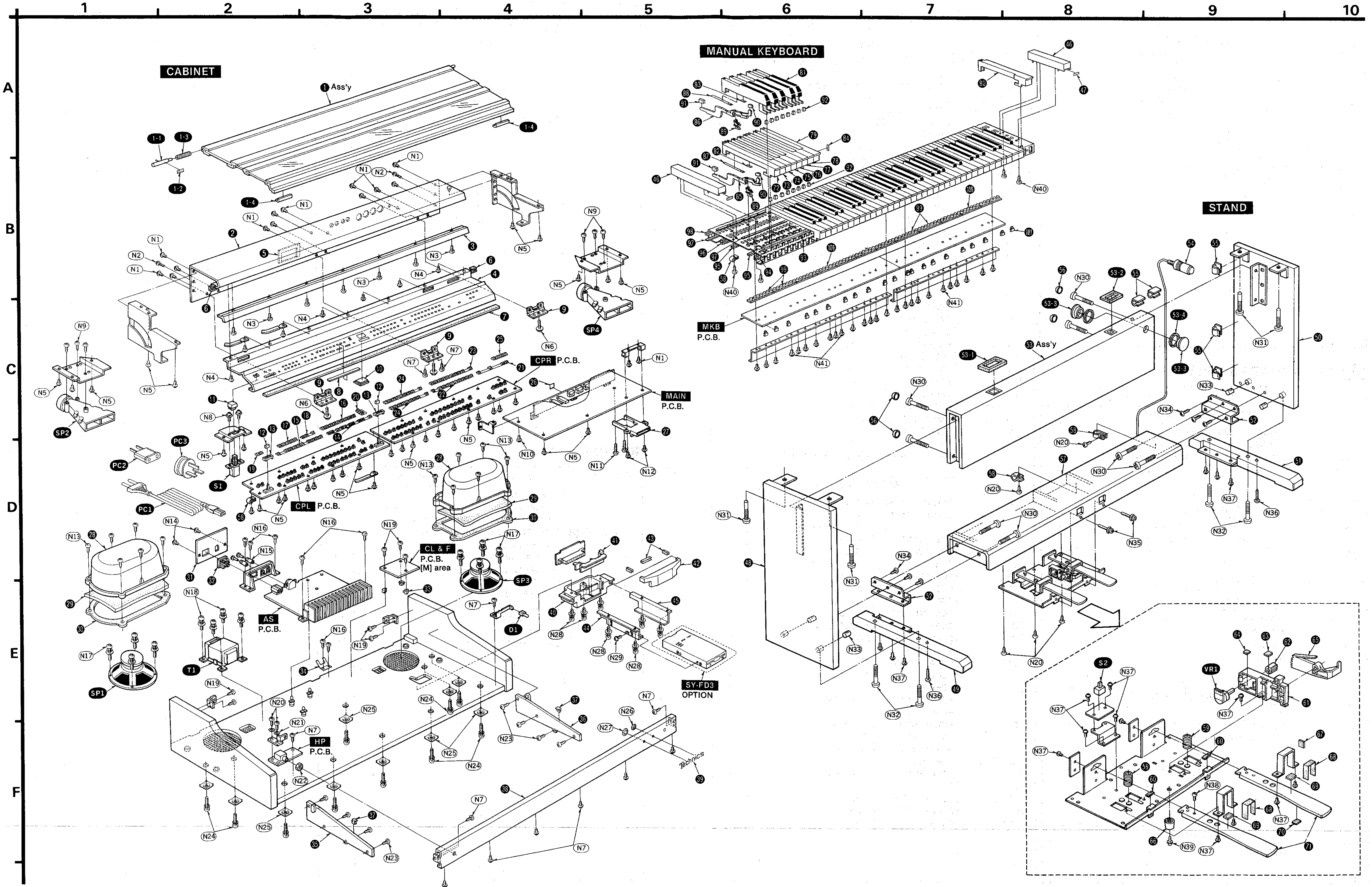
HP HEADPHONES CIRCUIT

Ref. No.	Part No.	Description	Per/Set
JACK			
JK1	SJJG100A	Headphones	1
COIL			
L1	SLQG15W33AP	Coil	1
RESISTORS			
R1, 2 ⚠	ERD50FJ331	330Ω, 1/2W, Flame-Proof	2
CAPACITORS			
C1, 2	ECKR1E473ZV	0.047μF	2
C3	ECQV1H104JZ	0.1μF	1

■ WIRING PARTS

Ref. No.	Part No.	Description	Per/Set
○ W1	SWKG03116ZA		1
○ W2	SWKG03117ZA		1
○ W3	SWKG04141SSA	Except [M] area	1
○ W4, 5 M	SWKG04145SSA	[M] area only	2
○ W6	SWKG0539SSA		1
○ W7	SWKG06128SSA		1
○ W8	SWKG06129ZA		1
○ W9	SWKG06130ZA		1
○ W10	SWKG08117SSA		1
○ W11	SWKG08118ZA		1
○ W12	SWKG1419SSA		1
○ W13	SWKG1518SSA		1
○ W14	SWKG165SSA		1

EXPLODED VIEWS OF CABINET (SX-PR100)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C
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CABINET
1 Ass'y
1-1
1-2
1-3
1-4
MANUAL KEYBOARD
STAND
53 Ass'y
53-1
53-2
53-3
53-4
CPR P.C.B.
MAIN P.C.B.
CPL P.C.B.
CL & F P.C.B. [M] area
AS P.C.B.
HP P.C.B.
MKB P.C.B.
SY-FD3 OPTION
Technics
SP1
SP2
SP3
SP4
PC1
PC2
PC3
S1
S2
T1
D1
VR1

REPLACEMENT PARTS LIST……Cabinet and Chassis Parts

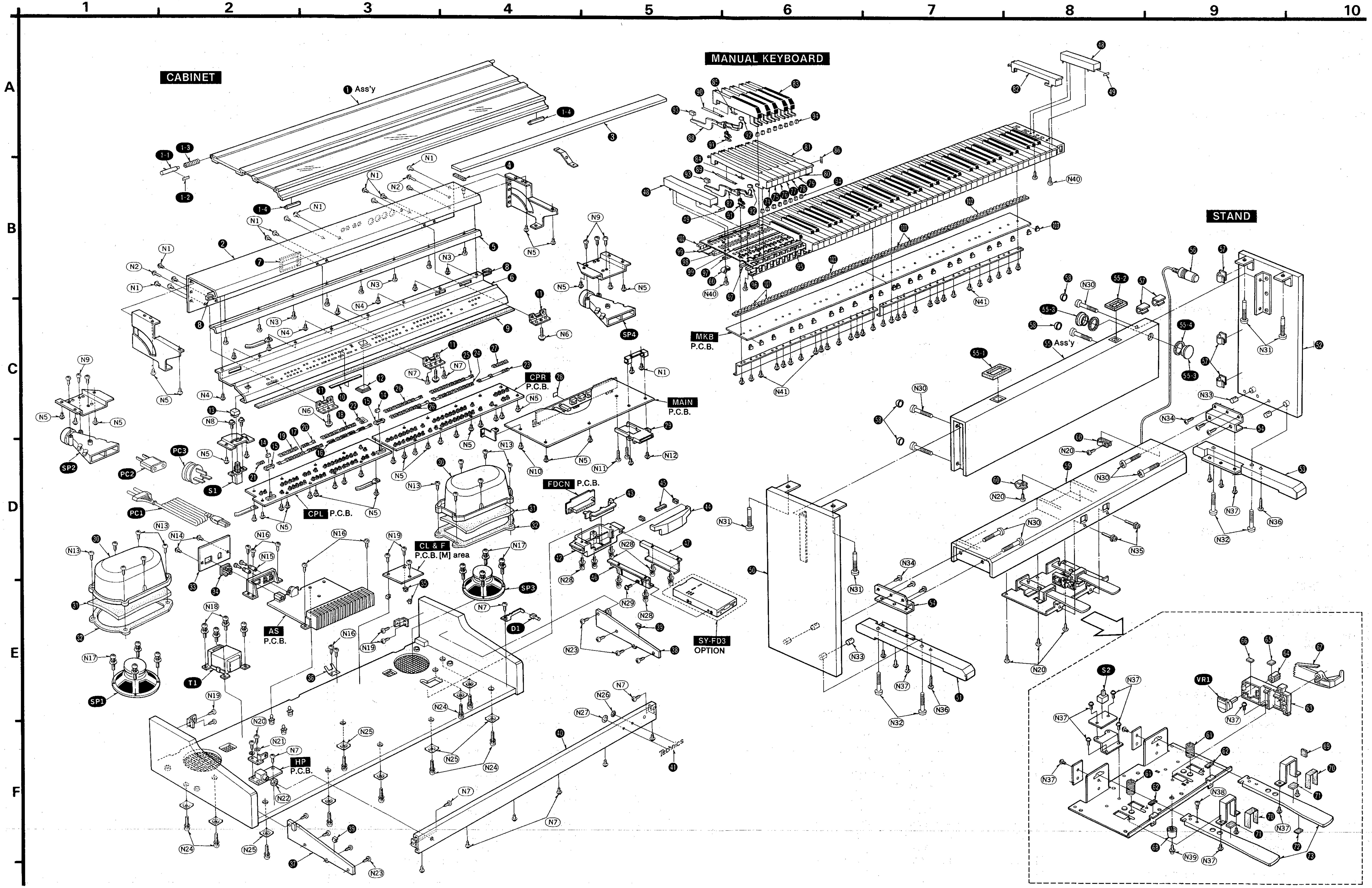
Notes:

1. Important safety notice
   Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
2. ○ mark are new parts.
3. For part No. with area mark, check the area when placing an order.

■ CABINET & CHASSIS PARTS (SX-PR100)

	Ref. No.	Part No.	Description	Per/Set
	SWITCHES			
	S1 ⚠	ESB8213V	Power Switch	1
	S2	SSHG1034A	Push Switch (Pedal)	1
	SPEAKERS			
	SP1, 3	EAS16PL403A	16cm, 8Ω	2
	SP2, 4	EAS8HH62A	Horn Tweeter, 16Ω	2
	VARIABLE RESISTOR			
	VR1	EVA06820A24G	20KΩ A (Sustain Pedal)	1
	TRANSFORMER			
	T1 [M] [MC] ⚠	SLTG5M31	Power Transformer	1
	T1 ⚠	SLTG5M30	Power Transformer, Other areas	1
	POWER INDICATOR			
	D1	LN29RP	Power Indicator	1
	POWER CORD & PLUG			
	PC1 ⚠ [M] [MC]	SJAG62	Power Cord	1
	PC1 ⚠ [XL] [XR]	SJAG61	Power Cord	1
	PC1 ⚠ [EK] [XS] [XD]	SJAG39	Power Cord	1
	PC1 ⚠	SJAG41	Power Cord, Other areas	1
	PC2 [X] ⚠	SJP5213-1	Attachment Plug	1
	PC3 [XD] ⚠	SJPG1350A	Power Plug	1
	CABINET PARTS			
○	1	SKZG8480A	Keyboard Cover Ass'y	1
	1-1	SNEG2310B	Shaft	1
	1-2	SHSG5930A	Felt	1
	1-3	SUSG550A	Spring	1
	1-4	SHGG8500A	Rubber Pad	2
○	2	SGWG1970A	Top Cover	1
○	3	SGXG2991A	Ornament	1
○	4	SGWG1950A	Control Panel	1
	5	SHSG3700A	Felt	1
	6	SHSG3670A	Felt	2
	7	SHSG3490A	Felt (Red)	1
○	8	SQTG8094A	MIDI Seal	1
	9	SBHG180A	Hinge	3
	10	SGUG50A	Display Panel	1
	11	SBCG110B	Power Switch Button	1
	12	SBNG7050A	Knob (Slide Volume)	2
	13	SGEG260A	Ornament (Slide Volume)	2
○	14	SBCG770A	Push Button	1
○	15	SBCG820A	Push Button	1
○	16	SBCG880A	Push Button	1
○	17	SBCG890A	Push Button	1
○	18	SBCG910A	Push Button	1
○	19	SBCG920A	Push Button	1
○	20	SBCG930A	Push Button	1
○	21	SBCG790A	Push Button	1
○	22	SBCG840A	Push Button	1
○	23	SBCG850A	Push Button	1
○	24	SBCG870A	Push Button	2
○	25	SBCG900A	Push Button	1
	26	SHSG4620A	Felt	1
○	27	SKEG1250A	Receptacle (Memory Card)	1
	28	SHRG8371A	Speaker Cover	2
	29	SHSG9160A	Sound Absorbing Material	2
	30	SHRGA7172A	Gasket (Speaker Cover)	2
	31 [M] [MC]	SMKG3051A	AC Panel	1
	31	SMKG3050A	AC Panel, Other areas	1
	32 [XL] [XR]	SJS9334A	AC Inlet Cover	1
	32	SJS9231A	AC Inlet Cover, Other areas	1
	33 [M]	SHRG4020A	P.C.B. Supporter	3
	34	SUSG560A	Spring	1
○	35	SKEG7710A	Left Guide	1
○	36	SKEG7720A	Right Guide	1
	37	SHGG8490A	Rubber	2
○	38	SGXG2872A	Ornament	1
	39	SGBG160A	Technics Badge	1
	40	SUVG2050A	DDR Connecter Case	1
	41	SUVG2060A	DDR Connecter Case	1
	42	SUVG2070A	DDR Connector Cover	1
	43	SHSG5970A	Felt	3
	44	SHRG9940A	DDR Blacket (Left)	1
	45	SHRG9950A	DDR Blacket (Right)	1
	46	SGWG2210B	End Cover Panel	2
	47	SHSG3690A	Felt (End Cover Panel)	2
	STAND			
○	48	SKSG2520A	Left Plank	1
	49	SKLG250A	Left Leg	1
○	50	SKSG2530A	Right Plank	1
	51	SKLG260A	Right Leg	1
	52	SUWG3060A	Metal Fittings	2
○	53	SKZG9360A	Horn Loaded Cabinet Ass'y	1
	53-1	SHRG7881A	Gasket	1
	53-2	SHRG7891A	Gasket	1
○	53-3	SHRG8380A	Cap	2
○	53-4	SHRG9970A	Spacer	2
○	54	SWPG150A	Pedal Cord	1
	55	SHRG9620A	Cord Clamper	5
	56	SNEG1760A	Cap	4
○	57	SKZGD950A	Pedal Box	1
	58	SHRG1070A	Cord Clamper	4
	59	SUSG440A	Spring	2
	60	SHSG2790A	Felt	2
	61	STBG9330A	Housing	1
	62	STBG9340A	Gear (Sustain Volume)	1
	63	SHSG3510A	Felt	1
	64	SHSG5980A	Felt	1
	65	STBG9350A	Lever with Gear	1
	66	SKLG160A	Foot	1
○	67	SHSG3560A	Felt	1
	68	SHSG2750A	Felt	2
	69	SHSG2770A	Felt	2
	70	SHSG3520A	Felt	1
	71	STBG3100A	Pedal	2
	MANUAL KEYBOARD			
○	72	STBGA1140A	White Key (EE Key)	1
	73	STBGA1100A	White Key (F Key)	6
	74	STBGA1110A	White Key (G Key)	6
	75	STBGA1120A	White Key (A Key)	6
	76	STBGA1060A	White Key (B Key)	6
	77	STBGA1070A	White Key (C Key)	6
	78	STBGA1080A	White Key (D Key)	6
	79	STBGA1090A	White Key (E Key)	6
○	80	STBGA1150A	White Key (GG Key)	1
	81	STBG2920A	Black Key	31
	82	SHSG3620A	Felt (White Key)	45
	83	SHSG3630A	Felt (Black Key)	31
	84	SHSG5910A	Felt (White Key)	45
	85	STBG9261A	Hammer (White Key)	45
	86	STBG9270A	Hammer (Black Key)	31
	87	SUSG520A	Spring (White Key)	45
	88	SUSG531A	Spring (Black Key)	31
	89	STBG9280A	Fulcrum (Hammer)	76
	90	SHGG9120A	Rubber Cap (Hammer)	76
	91	SHSG5760A	Felt (Hammer)	76
	92	SHRG9900A	Key Guide Rubber	76
	93	SHSG3451A	Felt	2
	94	SHSG3552A	Felt	2
	95	SHSG2700A	Felt	2
	96	SHSG3530A	Felt	2
○	97	SHSG3463A	Felt	2
	98	SHSG9312A	Felt	2
	99	SSPG7003A	Rubber Switch (7 Continuous)	4
	100	SSPG6003A	Rubber Switch (6 Continuous)	8
	101	SHRG9751A	P.C.B. Spacer	21
	SCREWS & WASHERS			
	N1	XTW3+8LFZ	Screw	15
	N2	SNEG1880A	Screw with Washer	2
	N3	XTN35+8F	Screw	7
	N4	XTW3+8J	Screw	7
	N5	XTV3+8B	Screw	35
	N6	XYN3+F14FZ	Screw with Washer	3
	N7	XTB35+12AFZ	Screw	14
	N8	XYN3+F10FZ	Screw with Washer	2
	N9	XTB4+10A	Screw	6
	N10	XTW3+6L	Screw	1
	N11	XTW3+16J	Screw	2
	N12	XTW3+10L	Screw	2
	N13	XTN5+12A	Screw	12
	N14	XTW3+8JFZ	Screw	2
	N15	SNEG1700A	Nylon Latch, Except for [M] & [MC] areas	2
	N16	XTB35+12A	Screw	7
	N17	XYN3+F20	Screw with Washer	8
	N18	XYN4+F14	Screw with Washer	4
	N19	XTB35+16A	Screw	4 (7)
	N20	XTB35+14A	Screw	7
	N21	XWA4B	Washer	2
	N22	XNS12FZ	Nut	1
	N23	XTB3+16AFZ	Screw	8
	N24	XYN5+C25FZ	Screw with Washer	10
	N25	SNEG150B	Washer	10
	N26	SNEG1770A	Reating Ring	1
	N27	SNEG1780A	Reating Ring	1
	N28	XYN3+F16FZ	Screw with Washer	7
	N29	XTV3+8BFZ	Screw	1
	N30	SNEG2280A	Bolt (Black)	8
	N31	SNEG2330A	Bolt (Brown)	4
	N32	SNEG2380A	Bolt (Yellow)	4
	N33	SNEG1710A	Nut	4
	N34	XTT4+16AFZ	Screw	6
	N35	XYN4+F16FZ	Screw with Washer	2
	N36	XTT4+30A	Screw	2
	N37	XTW3+8C	Screw	17
	N38	XSN3+10	Screw	1
	N39	XYN4+C25	Screw with Washer	1
	N40	XTT4+14A	Screw	4
	N41	XTW3+10TFZ	Screw	26

EXPLODED VIEWS OF CABINET (SX-PR200)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A
B
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D
E
F
CABINET
1 Ass'y
MANUAL KEYBOARD
STAND
MKB P.C.B.
CPR P.C.B.
MAIN P.C.B.
FDCN P.C.B.
CPL P.C.B.
CL & F P.C.B. [M] area
AS P.C.B.
HP P.C.B.
SY-FD3 OPTION
55 Ass'y
Technics
SP1
SP2
SP3
SP4
PC1
PC2
PC3
S1
S2
T1
D1
VR1

■ CABINET & CHASSIS PARTS (SX-PR200)

SWITCHES

Ref. No.	Part No.	Description	Per/Set
S1 ⚠	ESB8213V	Power Switch	1
S2	SSHG1034A	Push Switch (Pedal)	1

SPEAKERS

Ref. No.	Part No.	Description	Per/Set
SP1, 3	EAS16PL403A	16cm, 8Ω	2
SP2, 4	EAS8HH62A	Horn Tweeter, 16Ω	2

VARIABLE RESISTOR

Ref. No.	Part No.	Description	Per/Set
VR1	EVA06820A24G	20KΩ A (Sustain Pedal)	1

TRANSFORMER

Ref. No.	Part No.	Description	Per/Set
T1 M MC ⚠	SLTG5M31	Power Transformer	1
T1 ⚠	SLTG5M30	Power Transformer, Other areas	1

POWER INDICATOR

Ref. No.	Part No.	Description	Per/Set
D1	LN29RP	Power Indicator	1

POWER CORD & PLUG

Ref. No.	Part No.	Description	Per/Set
PC1 ⚠ M MC	SJAG62	Power Cord	1
PC1 ⚠ XL XR	SJAG61	Power Cord	1
PC1 ⚠ EK XS XD	SJAG39	Power Cord	1
PC1 ⚠	SJAG41	Power Cord, Other areas	1
PC2 X ⚠	SJP5213-1	Attachment Plug	1
PC3 XD ⚠	SJPG1350A	Power Plug	1

CABINET PARTS

Ref. No.	Part No.	Description	Per/Set
○ 1	SKZG8470A	Keyboard Cover Ass'y	1
1-1	SNEG2310B	Shaft	1
1-2	SHSG5930A	Felt	1
1-3	SUSG550A	Spring	1
1-4	SHGG8500A	Rubber Pad	2
○ 2	SGWG1960A	Top Cover	1
3	SKZGE020A	Plank	1
4	SHSG1270A	Felt	1
○ 5	SGXG2990A	Ornament	1
○ 6	SGWG1940A	Control Panel	1
7	SHSG3700A	Felt	1
8	SHSG3670A	Felt	2
9	SHSG3430A	Felt (Red)	1
○ 10	SQTG8094A	MIDI Seal	1
11	SBHG180A	Hinge	3
12	SGUG50A	Display Panel	1
13	SBCG110B	Power Switch Button	1
14	SBNG7050A	Knob (Slide Volume)	2
15	SGEG260A	Ornament (Slide Volume)	2
○ 16	SBCG770A	Push Button	1
○ 17	SBCG820A	Push Button	1
○ 18	SBCG880A	Push Button	1
○ 19	SBCG890A	Push Button	1
○ 20	SBCG910A	Push Button	1
○ 21	SBCG920A	Push Button	1
○ 22	SBCG930A	Push Button	1
○ 23	SBCG790A	Push Button	1
○ 24	SBCG840A	Push Button	1
○ 25	SBCG850A	Push Button	1
○ 26	SBCG870A	Push Button	2
○ 27	SBCG900A	Push Button	1
28	SHSG4620A	Felt	1
○ 29	SKEG1250A	Receptacle (Memory Card)	1
30	SHRG8371A	Speaker Cover	2
31	SHSG9160A	Sound Absorbing Material	2
32	SHRGA7172A	Gasket (Speaker Cover)	2
33 M MC	SMKG3051A	AC Panel	1
33	SMKG3050A	AC Panel, Other areas	1
34 XL XR	SJS9334A	AC Inlet Cover	1
34	SJS9231A	AC Inlet Cover, Other areas	1
35 M	SHRG4020A	P.C.B. Supporter	3
36	SUSG560A	Spring	1
○ 37	SKEG7710A	Left Guide	1
○ 38	SKEG7720A	Right Guide	1
39	SHGG8490A	Rubber	2
○ 40	SGXG2871B	Ornament	1
41	SGBG160A	Technics Badge	1
42	SUVG2050A	DDR Connecter Case	1
43	SUVG2060A	DDR Connecter Case	1
44	SUVG2070A	DDR Connector Cover	1
45	SHSG5970A	Felt	3
46	SHRG9940A	DDR Blacket (Left)	1
47	SHRG9950A	DDR Blacket (Right)	1
48	SGWG2210B	End Cover Panel	2
49	SHSG3690A	Felt (End Cover Panel)	2

STAND

Ref. No.	Part No.	Description	Per/Set
○ 50	SKSG2520A	Left Plank	1
51	SKLG250A	Left Leg	1
○ 52	SKSG2530A	Right Plank	1
53	SKLG260A	Right Leg	1
54	SUWG3060A	Metal Fittings	2
○ 55	SKZG9350A	Horn Loaded Cabinet Ass'y	1
55-1	SHRG7881A	Gasket	1
55-2	SHRG7891A	Gasket	1
○ 55-3	SHRG8380A	Cap	2
○ 55-4	SHRG9970A	Spacer	2
○ 56	SWPG150A	Pedal Cord	1
57	SHRG9620A	Cord Clamper	5
58	SNEG1760A	Cap	4
59	SKZGD840A	Pedal Box	1
60	SHRG1070A	Cord Clamper	3
61	SUSG440A	Spring	2
62	SHSG2790A	Felt	2
63	STBG9330A	Housing	1
64	STBG9340A	Gear (Sustain Volume)	1
65	SHSG3510A	Felt	1
66	SHSG5980A	Felt	1
67	STBG9350A	Lever with Gear	1
68	SKLG160A	Foot	1
○ 69	SHSG3560A	Felt	1
70	SHSG2750A	Felt	2
71	SHSG2770A	Felt	2
72	SHSG3520A	Felt	1
73	STBG3100A	Pedal	2

MANUAL KEYBOARD

Ref. No.	Part No.	Description	Per/Set
74	STBGA1050A	White Key (AA Key)	1
75	STBGA1060A	White Key (B Key)	8
76	STBGA1070A	White Key (C Key)	7
77	STBGA1080A	White Key (D Key)	7
78	STBGA1090A	White Key (E Key)	7
79	STBGA1100A	White Key (F Key)	7
80	STBGA1110A	White Key (G Key)	7
81	STBGA1120A	White Key (A Key)	7
82	STBGA1130A	White Key (CC Key)	1
83	STBG2920A	Black Key	36
84	SHSG3620A	Felt (White Key)	52
85	SHSG3630A	Felt (Black Key)	36

Ref. No.	Part No.	Description	Per/Set
86	SHSG5910A	Felt (White Key)	52
87	STBG9261A	Hammer (White Key)	52
88	STBG9270A	Hammer (Black Key)	36
89	SUSG520A	Spring (White Key)	52
90	SUSG531A	Spring (Black Key)	36
91	STBG9280A	Fulcrum (Hammer)	88
92	SHGG9120A	Rubber Cap (Hammer)	88
93	SHSG5760A	Felt (Hammer)	88
94	SHRG9900A	Key Guide Rubber	88
95	SHSG3451A	Felt	2
96	SHSG3552A	Felt	2
97	SHSG2670A	Felt	2
98	SHSG3530A	Felt	2
99	SHSG3461A	Felt	2
100	SHSG9312A	Felt	2
101	SSPG7003A	Rubber Switch (7 Continuous)	4
102	SSPG6003A	Rubber Switch (6 Continuous)	10
103	SHRG9751A	P.C.B. Spacer	24
SCREWS & WASHERS			
N1	XTW3+8LFZ	Screw	15
N2	SNEG1880A	Screw with Washer	2
N3	XTN35+8F	Screw	8
N4	XTW3+8J	Screw	8
N5	XTV3+8B	Screw	35
N6	XYN3+F14FZ	Screw with Washer	3
N7	XTB35+12AFZ	Screw	14
N8	XYN3+F10FZ	Screw with Washer	2
N9	XTB4+10A	Screw	6
N10	XTW3+6L	Screw	1
N11	XTW3+16J	Screw	2
N12	XTW3+10L	Screw	2
N13	XTN5+12A	Screw	12
N14	XTW3+8JFZ	Screw	2
N15	SNEG1700A	Nylon Latch, Except for [M] & [MC] areas	2
N16	XTB35+12A	Screw	7
N17	XYN3+F20	Screw with Washer	8
N18	XYN4+F14	Screw with Washer	4
N19	XTB35+16A	Screw	4 (7)
N20	XTB35+14A	Screw	7
N21	XWA4B	Washer	2
N22	XNS12FZ	Nut	1
N23	XTB3+16AFZ	Screw	8
N24	XYN5+C25FZ	Screw with Washer	10
N25	SNEG150B	Washer	10
N26	SNEG1770A	Reating Ring	1
N27	SNEG1780A	Reating Ring	1
N28	XYN3+F16FZ	Screw with Washer	7
N29	XTV3+8BFZ	Screw	1
N30	SNEG2280A	Bolt (Black)	8
N31	SNEG2330A	Bolt (Brown)	4
N32	SNEG2380A	Bolt (Yellow)	4
N33	SNEG1710A	Nut	4
N34	XTT4+16AFZ	Screw	6
N35	XYN4+F16FZ	Screw with Washer	2
N36	XTT4+30A	Screw	2
N37	XTW3+8C	Screw	17
N38	XSN3+10	Screw	1
N39	XYN4+C25	Screw with Washer	1
N40	XTT4+14A	Screw	4
N41	XTW3+10TFZ	Screw	30

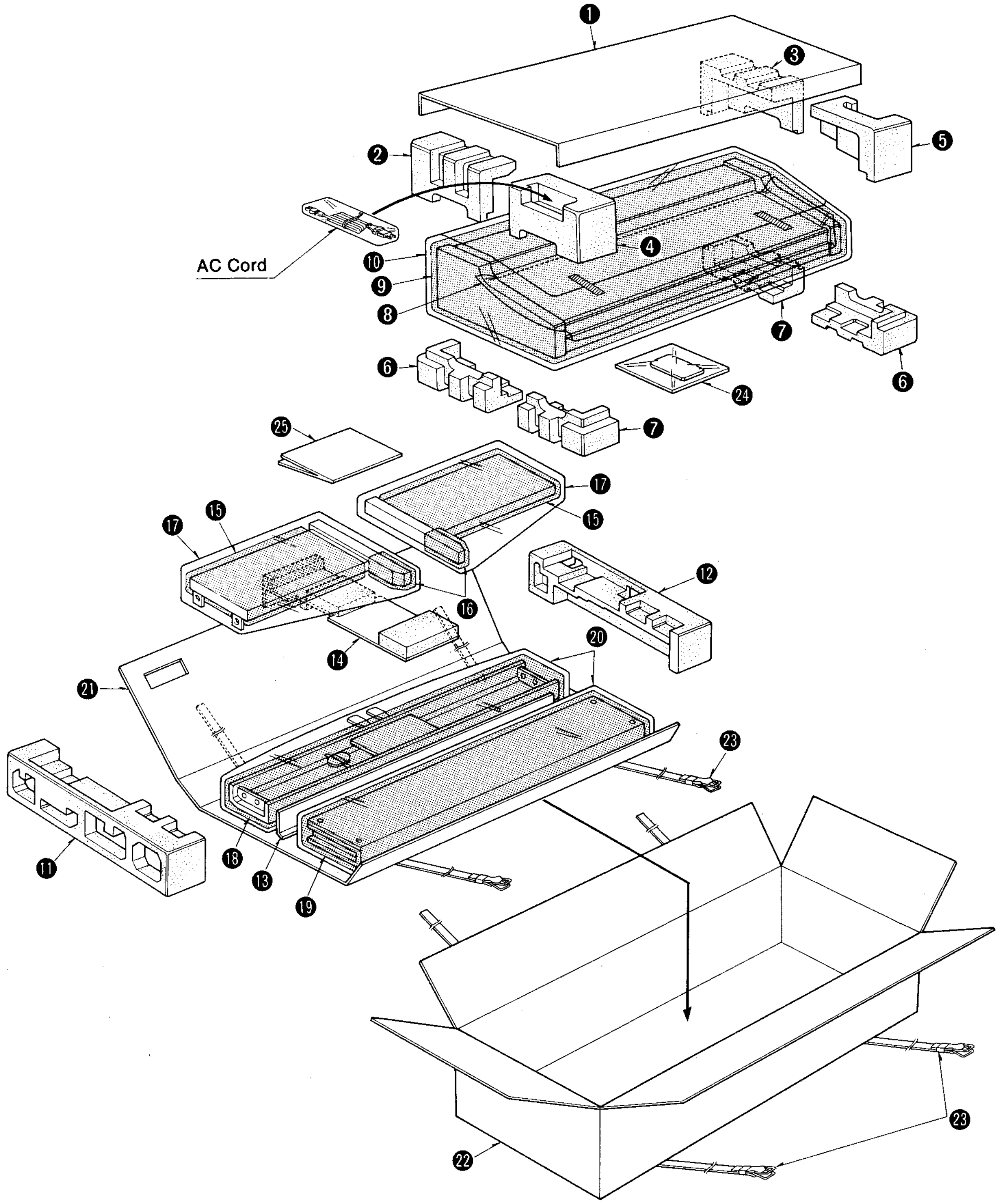
PACKINGT PARTS (SX-PR100)

Ref. No.	Part No.	Description	Per/Set
○ 1	SPNG2013A	Upper Cover	1
○ 2	SPNG5759A	Corner Pad (Upper)	1
○ 3	SPNG5760A	Corner Pad (Upper)	1
○ 4	SPNG5757A	Corner Pad (Upper)	1
○ 5	SPNG5758A	Corner Pad (Upper)	1
○ 6	SPNG5756A	Corner Pad (Lower)	2
○ 7	SPNG5755A	Corner Pad (Lower)	2
○ 8	SPHG2000A	Protection Sheet	1
○ 9	SPHG2130A	Protection Sheet	1
10	SPHG1110A	Polyethlene Bag	1
○ 11	SPNG5765A	Left Side Pad	1
○ 12	SPNG5766A	Right Side Pad	1
○ 13	SPNG2014A	Pad	1
○ 14	SPNG2008A	Pad	1
15	SPHG1580A	Protection Sheet	2
16	SPHG2010A	Protection Sheet	2
17	SPHG2050A	Polyethlene Bag	2
18	SPHG2100A	Protection Sheet	1
19	SPHG1870A	Protection Sheet	1
20	SPHG1570A	Polyethlene Bag	2
○ 21	SPNG2009A	Carton (Stand)	1
○ 22	SPNG2012A	Carton Box	1
23	SPSG40A	Band	4
INSTRUCTION BOOK			
○ 24 EN EL	SQFGA1020	Instruction Book	1
○ 24 M	SQFGA1050	Instruction Book	1
○ 24	SQFGA1040	Instruction Book, Other areas	1
○ 25	SQFGA21460	Instruction Book (Stand)	1

PACKINGT PARTS (SX-PR200)

Ref. No.	Part No.	Description	Per/Set
○ 1	SPNG2006A	Upper Cover	1
○ 2	SPNG5759A	Corner Pad (Upper)	1
○ 3	SPNG5760A	Corner Pad (Upper)	1
○ 4	SPNG5757A	Corner Pad (Upper)	1
○ 5	SPNG5758A	Corner Pad (Upper)	1
○ 6	SPNG5756A	Corner Pad (Lower)	2
○ 7	SPNG5755A	Corner Pad (Lower)	2
○ 8	SPHG2000A	Protection Sheet	1
○ 9	SPHG2120A	Protection Sheet	1
10	SPHG1110A	Polyethlene Bag	1
○ 11	SPNG5765A	Left Side Pad	1
○ 12	SPNG5766A	Right Side Pad	1
○ 13	SPNG2014A	Pad	1
○ 14	SPNG2008A	Pad	1
15	SPHG1580A	Protection Sheet	2
16	SPHG2010A	Protection Sheet	2
17	SPHG2050A	Polyethlene Bag	2
18	SPHG2100A	Protection Sheet	1
19	SPHG1870A	Protection Sheet	1
20	SPHG1570A	Polyethlene Bag	2
○ 21	SPNG2007C	Carton (Stand)	1
○ 22	SPNG2011A	Carton Box	1
23	SPSG40A	Band	4
INSTRUCTION BOOK			
○ 24 EN EL	SQFGA1020	Instruction Book	1
○ 24 M	SQFGA1050	Instruction Book	1
○ 24	SQFGA1040	Instruction Book, Other areas	1
○ 25	SQFGA21460	Instruction Book (Stand)	1

PACKING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